# J. OUTPATIENT CLINICS

## 1.0 PURPOSE AND SCOPE

This document sets forth space planning criteria for the Outpatient Clinical Services in military health care facilities.

## 2.0 DEFINITIONS

**Outpatient Clinical Services** - The concept of Outpatient Clinical Services includes two major elements. The first element provides preventive and curative medical care to ambulatory patients. The second element provides administrative and supportive space required to operate the service.

**Clinic** - A clinic may be general practice, a specialty, or a grouping of specialties. Specialties may be grouped when there are no medical contraindications and when the work load of each specialty does not warrant a separate clinic. A clinic will normally include the following areas: waiting, reception, offices, examination rooms, special purpose rooms, utility rooms, treatment rooms, storage space, linen rooms, conference rooms, lounges, and toilets.

**Emergency Clinic** - An Emergency Clinic provides outpatient diagnosis and treatment of conditions requiring the immediate attention of a physician during any part of a 24-hour day or treatment of a patient who describes a minor illness as an emergency. Emergency rooms can be level I, II, or III.

**Clinic Visit** - A visit is a contact between an eligible beneficiary and a medical care provider. A visit consists of either examination, diagnosis, treatment, evaluation, consultation, counseling, or medical advice in a clinic, or treatment/observation in quarters.

**Projected Work load** Refer to DoD Instruction 6015.17, Paragraph v.C.3.

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## 3.0 POLICIES

A minimum patient load of 150-200 inpatients per year and 1500-2000 outpatients per year with a diagnosis of malignancy is required to justify a separate Oncology Clinic.

**Adolescent** - A separate adolescent clinic will be programmed when justified by work load. (2 Adolescent Medicine providers and/or 15,000 adolescent medicine annual visits).

**Well Baby** - A separate well baby clinic will be programmed when justified by work load. (2 providers and/or 10% of total annual pediatric visits)

**The Emergency Clinic** is programmed by individual study based on requirements to handle a high number of true emergency cases. This Clinic is not considered to be general walk in clinic. The Emergency Clinic should be located adjacent to the ancillary support services.

Emergency Area is required when the work load and staffing do not warrant an Emergency Clinic.

**Family Practice** - Functions required where Family Practice is a department (separate from the Primary Care Clinics).
Family Practice - Functions required in the Family Practice Clinic when certain Medical/Specialty Clinics are not programmed.
Family Practice - Functions required where Family Practice is a service within the Primary Care Clinics.

**Physical Examination** - A separate Physical Examination Clinic is normally provided when work load exceeds an average of 100-150 examinations per week (20 per day). Do not include Family Practice Physical exams when determining whether to establish a separate Physical Examination Clinic. (In computing workstations, any fraction of 0.4 or over may be converted to the next highest number. A minimum of one each is required unless otherwise indicated.)

**Clinic Composition**

Whenever the work load of any specialty does not support a separate clinic, two more specialties may be combined using the following or other compatible groupings.

**Medical Specialty**

Allergy/Immunization
Cardiology
Dermatology
Endocrine and Metabolic
Gastroenterology
Hematology/Oncology
Infectious Disease
Internal Medicine
Nephrology
Neurology
Nutrition
Pulmonary
Rheumatology
Family Practice

**Psychiatric Clinics**

Mental Health/Hygiene
Psychiatry
Child Psychiatry
Clinical Psychology

**Eye, Ear, Nose & Throat**

Ophthalmology/Optometry
Otorhinolaryngology
Audiology
Speech Therapy

**Obstetrics and Gynecology**

OB/GYN
Family Planning

**Pediatrics**

Adolescent
Infectious Disease Pediatrics
Well Baby

**Primary Care**

Emergency
Family Practice
General Practice
Physical Examination

**Surgical Specialty**

General Surgery
Neurosurgery
Orthopedic/Podiatry
Plastic Surgery
Thoracic - Vascular
Urology
Colorectal

**Military/Environmental Clinics**

Community Health Nursing
Preventive Medicine
Aerospace, Aviation, and Submarine Medicine
Occupational Health/Civilian Employee Health Clinic
Industrial Hygiene, Environmental and Bioenvironmental Sciences

**Other Clinics**

**Physical Medicine**

The OB/GYN Clinic will not be combined with any other clinic due to medical contraindication.

The Emergency Area should be adjacent to the General Outpatient Clinic, the Primary Care Clinic, or the Family Practice Clinic (according to the specific Military Medical Department).

**Clinic Size**

Programming a separate specialty clinic is not considered practical when less than two physicians are required.

To facilitate clinic management and accommodation of patients, a clinic normally should not exceed 12 to 15 physicians. Patient and staff toilet facilities for outpatient clinics.

* The number of fixtures to be provided for these functions will be based on the total number of visitors and patients during the peak period as indicated by the number of seats provided in waiting rooms. The following table will be used to determine the number of fixtures.

| | Water Closets | Urinals | Lavatories |
|---|---|---|---|
| Each 15 women or fraction thereof | 1 | | 1 |
| Each 20 men or fraction thereof | 1 | | 1 |
| Each 40 men or fraction thereof | | 1 | |

* Space for the toilet fixture requirements calculated above will be provided as follows:

| | Planning Range |
|---|---|
| Patient & Visitor toilets containing no more than one fixture of the same kind | 30 NSF per fixture |
| Toilet rooms containing two 30 NSF per fixture or more fixtures of the same kind will have at least one handicapped fixture | 30 NSF per fixture |
| Patient toilets within clinics (ie.., specimen) | 30 NSF per fixture |
| Staff toilet room fixtures | 30 NSF/fixture |
| Single occ toilet | 50 NSF each |
| Diaper change area | 10 NSF |

**Locker Rooms:** In general, locker room space will be consolidated into a central locker room facility with appropriate toilet and shower facilities. Individual clinics will be provided with locker rooms only where the staff is required to change into alternative clothing for purposes of asepsis, infection control, or patient safety. The number of fixtures for the toilet shower facilities will be calculated based upon the planned number of employees on duty during the daytime shift minus personnel employed in the surgical suite, the obstetrical suite, food service, and employees on the nursing units. Lavatories and toilets will be provided according to the ratios identified above. Showers will be provided on a ratio of 1 shower per 20 using employees, not to exceed 10 shower fixtures.

**Lounges :** A staff lounge is permitted per clinic by the criteria. Where a staff lounge will serve less than 10 employees per shift, every effort will be made to combine the lounges from two or more adjacent clinics. The staff lounge criteria includes a 10 NSF allowance for "Box Lockers" to permit employees that do not have an assigned office to secure their personal belongings (purses, hats, and so forth).

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## 4.0 PROGRAM DATA REQUIRED

Projected clinic visits per year.

Distribution of clinic visits by clinic or service and beneficiary category.

Number of providers programmed.

Distribution of practitioners by specialty and/or service.
Distribution of technicians by specialty or service
Distribution of nurse practitioners by specialty or service
Projected number of immunizations per year.
Projected ECG tests per year.
Projected EEG tests per year.
Projected number of chemotherapy doses per year
Projected number of physical examinations per year.
Basis of projections.
Data used for individual studies of specific functions.
Projected records = (eligible beneficiaries) x (1 + carry over)

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## 5.0 SPACE CRITERIA

### Clinic Space Requirements:

The following lists indicate functions that are normally required, the basis for planning and the planning range for clinics in DoD Hospitals. Functions which are not listed and those which show "Individual Study" require a study to determine the need and space requirement based on the tasks to be performed and equipment to be accommodated. It is intended that planners include all functional areas listed herein, unless there is a valid requirement at the installation under consideration.

Modification of the space criteria may be necessary to meet specific mission requirements but any such modification will require OASD(HA) approval. Special requirements for spaces not covered by this document will be developed on an individual basis and will require OASD(HA) approval.

**Physician's Offices** - Each physician, Physician's assistant, clinical nurse practitioner, and allied scientist on the staff will be provided a private office based on the following criteria: (excluded offices are provided under other criteria, such as Radiologists, Pathologists, Anesthesiologists, Commanders, etc.).

| | |
|---|---|
| Chiefs of major departments in teaching hospitals | 150 NSF |
| Conference Room | 280 NSF |
| Chiefs of specialty services in teaching hospitals/Dental activities | 140 NSF |
| Chiefs of major services in other hospitals/Dental activities | 140 NSF |
| All other physician's, physician's assistants and clinical nurse practitioners who do not require a combination office-exam room | 100 NSF/office |
| Allied scientists who require a combination office-exam room | 140 NSF office/exam |

**Conference Area** - Provided in each clinic for group teaching 200-250 NSF as required.

The following are the space planning criteria for DoD Outpatient Clinical Services, organized in alphabetical order.

| FUNCTION | NSF AUTHORIZED | PLANNING RANGE/COMMENTS |
|---|---|---|

**Department Administration**

**Administrative Offices** - The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration (Page A-5) and the following specific areas

| | | |
|---|---|---|
| Central Clinic Lobby | 150 | minimum or 16 NSF per seat. Maximum 500 NSF<br>Seats = avg clinic visit per day x 0.2 / 7 hours per day |
| ADP terminal | 20 | per terminal device |
| Visitor Toilets | | |
| Male (wc, lav) | 60 | 30 NSF per fixture per 20 seats |
| Urinal | 30 | 30 NSF per fixture per 40 seats or fraction thereof. |
| Female | 60 | 30 NSF per fixture per 15 seats. |
| Outpatient Records | ** | (1) Lineal Feet (LF) shelf space =<br>Projected Records / 16 records per LF<br>(2) NSF = LF x shelf factor(*)<br>(*) w/6 shelves = 0.42.<br>(*) w/5 shelves = 0.504 |
| Outpatient Records Clerk | 80 | minimum. 80 NSF per station, 1 for each clerk programmed |
| Central Appointment | 80 | per clerk<br>Weekly scheduled visits =<br>annual scheduled visits / 50 (wks per yr)<br>Clerks required =<br>Weekly sched. visits)X(1.2 ) / 700 (apt per clerk-wk)<br>**note:** 1.2 is multiplier to account for multiple calls per appointment, i.e. cancellations. |
| Appointment Clerk Lounge | 110 | May be provided with 3 or more clerks. Add 10 NSF per clerk greater than 10. Maximum 150 NSF |
| Addressograph Machine | 60 | per machine. add 20 when ADP equipment is programmed |

**Functions Common to all Clinics (exceptions noted)**

| | | |
|---|---|---|
| Reception | 100 | minimum; 1 per clinic |
| ADP terminal | 20 | per terminal device |
| Waiting | 16 | per space; 25 per handicapped seat 2.6 spaces per exam or treatment room, unless otherwise noted. Recommend 5% of total space dedicated to handicapped seating. |
| Public Toilets: | | |
| Male (wc, lav,ur) | 90 | 30 NSF per fixture per 20 seats. |
| Urinal | 30. | per 40 seats or fraction thereof. |
| Female (wc, lav) | 60 | 30 NSF per fixture (lav, wc) per 15 seats. |
| Litter/Wheelchair storage | 60 | 1 per clinic |
| Nurse's Office | 100 | 1 per head nurse programmed |

| | | |
|---|---|---|
| NCOIC Office | 100 | per clinic |
| Nurse's Station | 100 | 1 per clinic when 2 or more treatment/procedure rooms are programmed |
| Clean Utility Room | 150 | 1 per clinic |
| Equipment Storage | 100 | Individual justification. Not required in all clinics. |
| Soiled Utility/ | 80 | 80 1 per clinic |
| Trash Room | 50 | |
| Janitor's Closet | 40 | 1 per 10,000 NSF |
| Staff Toilets: | | |
| Male (wc, lav) | 60 | 30 NSF per fixture per 20 men |
| Urinal | 30 | One per 40 men or fraction thereof |
| Female (wc, lav) | 60 | 30 NSF per fixture per 15 women |
| Staff Lounge | 100. | minimum; add 10 NSF per staff member greater than 10. 200 NSF maximum. One per clinic. If less than 10 staff members per shift, consider combining with another clinic. |
| Conference Room | 200 | Individual Study. 1 per service with teaching or training program. For small svcs., function could be met by adding 40 NSF to lounge. |
| Staff Lockers: | | |
| Male | 100 | minimum; add 6.5 NSF per locker for each FTE greater than 10. Consolidate locker space as defined in section 3.0 |
| Female | 100 | minimum; add 6.5 NSF per locker for each FTE greater than 10. Consolidate locker space as defined in section 3.0. |
| Doctor's Office | 100 | 1 per doctor programmed |
| Exam Room | 100 | 2 per doctor programmed |
| Procedure Room | 150 | 1 per clinic if justified |
| **Medical Specialty Clinics** | | |
| **Allergy/Immunization** | | |
| Allergen Injection Room | 140 | 1 per Allergy Clinic |
| Skin Testing Room | 60 | per station, min 2 stations<br>number of stations =<br>visits per wk x test per visit / 3 test per hr x 20 hr per wk |
| Holding Area | 100 | 1 per Allergy Clinic |
| Allergen Preparation Laboratory | 120 | minimum; 60 NSF per space1 space per 2 skin testing stations. 1 Lab per clinic |
| Immunization | 200 | minimum; 140 NSF per station<br>number of stations =<br>injections per week / 20 inj per hr x 35 hr per wk |
| Immunization Holding Area | 100 | 1 per immunization room |
| Immunization Waiting Area | 16 | per space; 12 spaces per injection station |

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**Cardiology**

| | | |
|---|---|---|
| Electrocardiogram Testing Area | 100 | per station, Stations = ECG tests/week / 3 tests per hr x 35 hr per wk |
| ECG Work Area and Records | 80 | per work area plus 10 NSF per station. 1 per clinic |
| Vectorcardiography Room/Signal Averaged ECG | 100 | 1 per Cardiology Clinic |
| Dressing Cubicle | 40 | per cubicle; 1 per ECG, 1 per Vectorcardiography, 1 per Phonocardio Room, 1 per Echocardiography |
| Phonocardio & Echo cardiography Room | 140 | Individual Study |
| Treadmill/Stress Test Room w/Shower | 200 | 1 per Cardiology clinic when cardiologist is programmed. Add 50 NSF if 'Master-2-Step' stairs are required. |
| Holter Monitor Room | 100 | 1 per Cardiology clinic when cardiologist is programmed |
| Cardiac Cath. Lab | | 1 per Card. Cl. where authorized |
| Exposure Room | 530 | single plane only |
| Biplane Ex. Room | 700. | Special justification required. |
| Control Room | 100 | 1 per exposure room |
| Dark Room w/ repl tank space | 120 | 1 per 1-2 exposure rooms(if cine film processing)? |
| Computer Room | 80 | 1 per 1-2 exposure rooms |
| Cine Film Viewing | 100 | per exposure room, 1 room |
| Cine Film Storage | 100 | per exposure room, 1 room |
| Prep Room | 100 | 1 per 1-2 exposure rooms |
| Scrub Room | 60 | 1 per 1-2 exposure rooms |
| Soiled Utility Rm | 80 | 1 per exposure room |
| Instrument Room | 100 | 1 per 1-2 exposure rooms |

**Dermatology**

| | | |
|---|---|---|
| Derm./Procedure Treatment Room | 150 | 1 per service, add a 2nd room when 3 or more physicians are programmed for Dermatology |
| Dermatology Lab | 60 | 1 per clinic. Additional rooms justified based on 1 per 5 providers. |
| Ultraviolet Booth | 40. | 1 per clinic. Additional rooms justified based on 1 per 5 providers. |
| MOHS Treatment/Lab | ** | Individual study. Includes treatment spaces, sub-waiting & lab. |
| Dermatology Exam | 100 | 2 per provider |
| Grenz Ray Room | 80 | 1 per clinic |
| Dressing Cubicle | 40 | |
| Linen Storage | 20 | |

**Endocrine and Metabolic**

| | | |
|---|---|---|
| Doctor's Office | 100 | 1 per doctor programmed |
| Exam Room | 100 | 2 per doctor programmed |
| Procedure Room | 150 | 1 per clinic if justified |
| **Gastroenterology** | | |
| Fluoroscopic Room (Upright machine) | 270 | Individual Study |
| Treatment Room | 150 | 1 per clinic |
| Proctoscopic Room | 150 | 1 per clinic |
| Dressing Cubicle | 60 | minimum; 40 NSF per cubicle. 2 per proctoscopic room |
| Patient Toilet | 50 | 1 per proctoscopic room wc/lav |
| Endoscopy Room | 150 | Individual Study |
| Patient Toilet (WC/Lav) | 50 | 1 per endo Room (WC/Lav) |
| Recovery Room | 120 | 1 per clinic |
| Patient Toilet | 50 | 1 per recovery room |
| Esophageal Motility Room w/Toilet | 140 | 1 per clinic |

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| | | |
|---|---|---|
| **Hematology/Oncology** | | |
| Pharmacist Officer office | . | per individual study. |
| Tumor Board Registry | | per individual study. |
| Nurse Specialist's Office | 100 | 1 per nurse specialist programmed |
| Chemotherapy | | Individual Study 1 per clinic |
| Treatment Room | 300. | 2,500 to 10,000 annual doses. Allowance provides for 3 patient chairs and support space. |
| Holding Area | 300 | Greater than 10,000 doses |
| Recovery Room | 120 | 1 per clinic |
| Patient Toilet | 50 | 1 per recovery room |
| Special Purpose Room | | Individual Study |
| Social Worker's Office/Exam Room | 140 | 1 per social worker programmed in Medical Clinic |
| Social Work Specialist's Office | 100 | 1 per technician programmed |
| **Infectious Disease** | | |
| Providers Office | 100 | 1 per provider |
| Exam Room | 100 | 2 per provider |
| **Internal Medicine** | | |
| Nurse Practitioner's Office | 100 | 1 per nurse practitioner programmed |
| Exam Room | 100 | 2 per nurse practitioner |
| **Nephrology** | | |
| Renal Studies | 100 | 1 per clinic when a renal specialist is programmed |

**Neurology**

| | | |
|---|---|---|
| EEG Testing Area | 100 | per station Stations = |

| | | |
|---|---|---|
| | | tests/wk / 0.5 tst per hr x 30 hr per wk |
| EEG Work Area | 130 | plus 10 NSF per EEG test station greater than one. 1 per clinic |
| **Nutrition** | | |
| Dietitian's Office | 100 | 1 per full-time dietitian programmed |
| Height/Weight Screening | 100 | |
| **Pulmonary (Supports both inpatient and outpatient)** | | |
| Chief Therapist Office | 100 | 1 per clinic |
| | Office | Office |
| Equipment Prep. Cleaning Area | 150 | minimum; plus 10 NSF per Tx. cubicle. 200 max. 1 per clinic |
| Equip. Storage & Maintenance Area | 150 | minimum; plus 10 NSF per Tx. cubicle. 1 per clinic |
| Gas Cylinder Storage | 30 | 1 per clinic |
| Ventilator Storage | 10 | per ventilator |
| Inhalation Cubicles | 150 | minimum; cubicles = treatments per week . / 4 treatments per hr x 35 hr per wk |
| | 80 | per tilt table |
| | 70 | per chair |
| | | 1 tilt table per two chairs |
| **Pulmonary Function Lab: If Pulmonary Service is programmed** | | |
| Administration Space | 100 | 1 per lab |
| Screening | 50 | 1 per lab |
| Flow Volume Loop | 50 | 1 per lab |
| Automated Pulmonary Function | 100 | 1 per lab |
| Body Box | 100 | 1 per lab |
| Blood Gas Analysis | 25 | 1 per machine |
| Treadmill Room | 250 | Individual Study |
| Sleep Studies Room | 100 | Individual Study |
| Anteroom (for equipment) | 50 | Individual Study |
| Respiratory Treatment equipment storage | 25 | per cubicle 1 per respiratory treatment area |
| Home Care Coordinator Office | 100 | 1 per respiratory treatment |
| Endoscopy/ Bronchoscopy Suite | 150 | Individual Study |
| Recovery Room | 120 | 1 per clinic |
| Patient Toilet | 50 | 1 per recovery room WC/LAV |
| Spirometry studies | 50 | |
| **Rheumatology** | | |
| Providers Office | 100 | 1 per provider |
| Exam Room | 100 | 2 per provider |

**Obstetrics and Gynecology**

**OB/GYN**

| | | |
|---|---|---|
| Weights and Measures | 200 | 1 per clinic |
| Treatment Room | 150 | 1 per clinic |
| Consultation Room | 100 | Individual Study |
| Specimen Lab | 100 | Individual Study |
| Specimen Toilets | 50 | minimum; |
| Nurse Practitioner's/ Physician's Asst Office | 100 | 1 per nurse practitioner/PA programmed |
| Exam Room | 100 | 2 per nurse practitioner/PA programmed |
| Ultrasound/NST | 150 | |
| Literature/Forms Storage & Audio/ Visual Aids | 200 | 1 per clinic |
| Conference Room 200 1 per clinic | Conference Room 200 1 per clinic | Conference Room 200 1 per clinic |

**Pediatric Clinics**

**Adolescent -** A separate adolescent clinic will be programmed when justified by work load. (2 adolescent medicine providers and/or 15,000 adolescent medicine annual visits)

| | | |
|---|---|---|
| Doctor's Office | 100 | 1 per doctor programmed |
| Exam Room | 100 | 2 per doctor programmed |
| **Pediatrics** | | |
| Waiting/Play Area | 16 | per space. 25 NSF per handicapped space. 4.3 spaces per exam or treatment room. 5% of total spaces dedicated to handicapped |
| Toy Storage | 100 | 1 per clinic |
| Patient Toilet | | |
| Male WC/LAV | 70 | 30 NSF per fixture and 10 NSF for counter w/sink for diaper change. |
| Female | 70 | 30 NSF per fixture and 10 NSF for counter w/sink for diaper change. |
| **Isolation Suite** | | |
| Isolation Waiting | 100 | 1 per clinic |
| Isolation Toilet WC/LAV | 70 | 10 NSF for counter w/sink for diaper change. 1 per clinic. |
| Isolation Exam Room | 100 | 1 per clinic |
| Treatment Room | 150 | 1 per 8 doctors |
| Nurse Pract. Office | 100 | 1 per nurse practitioner programmed |
| Exam room | 100 | 2 per practitioner programmed |
| Weights and Measures Room | 200 | 1 per clinic |
| Vision & Hearing/ Screening Room | 100 | 1 per clinic |
| Psychological Testing | 100 | Individual Study |
| Immunization Area | 200 | minimum. If immunizations are administered, see the immunization criteria. 140 NSF per station |
| Holding area | 100 | per clinic |
| Waiting area | 16 | per space; 12 spaces per station |

| | | |
|---|---|---|
| Social Worker's Office | 140 | 1 per social worker programmed |
| Gross motor skills exam/testing room | 150 | Supports designated developmental pediatrics mission |

**Well Baby -** A separate well baby clinic will be programmed when justified by work load. (2 providers and/or 10% of total annual pediatric visits)

| | | |
|---|---|---|
| Subcontrol | 100 | 1 per clinic |
| Waiting | 16 | per space. 25 NSF per handicapped. Based on Well Baby study visits, 5% of total area dedicated to handicapped |
| Feeding Room | 100 | Individual Study |
| Toilet WC/LAV | 70 | 30 NSF per fixture and 10 NSF for counter for diaper change. |
| Immunization area | . | If immunizations are administered, see the immunization criteria. |

**Primary Care Clinics**

**Emergency**

The Emergency Clinic is programmed by individual study based on requirements to handle a high number of true emergency cases. This clinic is not considered to be a general walk-in clinic. The Emergency Clinic should be located adjacent to the ancillary support services.

| | | |
|---|---|---|
| Head Nursing | 100 | |
| Waiting | 16 | per space; 25 per handicapped spaces; 3.9 spaces per exam. 5% of total space dedicated to handicapped seating. |
| Pt. Toilet (wc,lav) | 50 | 1 per clinic |
| Tap/Decon/sponge | 100 | 1 per ER clinic for infants |
| Family consultation and waiting area | 120 | 1 per clinic |
| Equipment storage | 250 | 1 per clinic |
| Isolation room | 140 | 1 per clinic |
| **Emergency Area** | **required when the workload and staffing do not warrant an Emergency clinic** | |
| Triage area | 60 | per cubicle. 1 cubicle per 10,000 yearly visits |
| Family Waiting and consultation Rm | 120 | 1 per Emergency Area |
| Ambulance Dispatch | 100 | minimum plus 10 NSF per driver on duty per shift. 1 per hospital |
| Emergency Room | 300 | per room. Individual study |
| Treatment cubicle | 120 | per cubicle. Individual study |
| OB/GYN Exam Room | 100 | 1 per clinic |
| MOD Room | 100 | 1 per hospital |
| AOD Room | 100 | 1 per hospital |
| Toilet - shower | 70 | 1 per 2 AOD or MOD bedrooms. Single occuppancy |
| Equipment Storage | 100 | 1 per clinic |

**Family Practice**

Functions required where Family Practice is a department (separate from the Primary Care clinics).

| | | |
|---|---|---|
| Dietitian's Office | 100 | 1 per dietitian programmed 1 per clinic |
| Nurse Practitioner's Office | 100 | 1 per nurse practitioner |
| Exam Room | 100 | 2 per nurse practitioner |
| Holding Area | 120 | 1 per immunization room |
| Patient toilet | 60 | |
| Diaper change | 10 | |
| Family Therapy room | 140 | 1 per clinic |
| Physician's assistant's office | 100 | 1 per PA programmed |
| Exam Room | 100 | 2 per PA programmed |
| Patient Learning Library | 200 | 1 per clinic |
| Functions required in the Family Practice Clinic when certain Medical/Specialty Clinics are not programmed | | |
| Proctoscopic room | 150 | 1 per clinic if medical or surgical specialty clinic not programmed |
| Toilet | 50 | 1 per proctoscopic room |
| ECG room | 100 | 1 per clinic if medical specialty clinic not programmed |
| Dressing Cubicle | 40 | 1 per ECG Room |
| Audiobooth Room (screening) | 110 | 1 man double wall booth |
| | 210 | 4 man double wall booth |
| | 260 | 6 man double wall booth |
| Optometric Eye lane | 140 | 1 per clinic if Optometry Specialty Clinic not programmed |
| ENT Exam Area | 100 | 1 per clinic if ENT specialty not programmed |
| Appliance Modify Prep and Cast room | 140 | 1 per clinic if Orthopedic Specialty clinic not programmed |
| Functions required where Family Practice is a service within the Primary Care Clinics | | |
| Nurse | 100 | 1 nurse per practitioner programmed |
| Exam room | 100 | 2 per nurse practitioner |
| Treatment Room | 120 | 1 per clinic |

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**General Practice**

| | | |
|---|---|---|
| Exam Room | 100 | 2 per nurse practitioner and/or 2 per physician extender programmed |
| Treatment Room | 150 | 1 per clinic |
| TPR Room | 100 | 1 per clinic |
| Nurses station | 100 | 1 per clinic |
| Nurse Practitioner's Office | 100 | 1 per nurse practitioner programmed |

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**Physical Examination**

A separate Physical Examination Clinic is normally provided when work load exceeds an average of 100-150 examinations per week (20 per day). Do not include Family Practice physical exams when determining whether to establish a separate Physical Examination Clinic. In computing workstations, any fraction of 0.4 or over may be converted to the next highest number. A minimum of one each is required unless otherwise indicated.

| | | |
|---|---|---|
| Waiting & Form writing | 16 | per space. Number of spaces = phys exams per day / 2 (groups per day) |
| History Station | 50 | per station, 1 station per 40 exams per day |
| Height & Weight | 50 | 50 per station, 1 station per 100 exams per day |
| Blood Pressure and Pulse Station | 50 | per station, 1 station per 100 exams per day |
| ECG Station | 90 | per station, 1 station per 80 exams per day |
| Specimen Toilet (wc, lav) | 50 | single occupancy |
| Urine Spec. Coll. | 70 | 1 per clinic |
| Vision Testing (Screening only) | 70 | per station, 1 station per 60 exams per day |
| Optometric Eye Lane | 140 | 1 per clinic if Optometric Clinic not programmed & no eyelane provided in Family Practice Clinic |
| Audiobooth | 110 | 1 man double wall booth |
| | 210 | 4 man double wall booth |
| | 260 | 6 man double wall booth |
| Dental Check | 90 | per station, 1 if number of physical exams per day exceeds 100 per day. |
| X-Ray Station | 180 | if number of physical exams per day exceeds 150 per day |
| Darkroom | 90 | 1 per clinic when X-ray station is programmed. |
| ENT Exam Station | 100 | 1 per clinic if ENT Specialty Clinic not programmed |
| Wait Between Stations & Int. Cir. | 20 | min; 5% of Amt. of space req'd for exam rooms. 1 per clinic. |

**Physical Examination Clinic with under 20 exams per day.**

| | | |
|---|---|---|
| Waiting & Form Writing (w/alcove) | 140 | 1 per clinic |
| Reception Desk | 100 | 1 per clinic |
| Specimen Toilet | 50 | minimum; single occupancy |
| ECG w/dress. booth | 120 | 1 per clinic |
| Weights & Measures | 70 | 1 per clinic |
| Blood Collection | 50 | 1 per clinic |
| Waiting between Stations & Int. Circulation | 16 | per seat. seats = avg. clinic visits per day x 0.02 / 7 hours per day |

**Psychiatric Clinics**

**Mental Health/Hygiene**

| | | |
|---|---|---|
| Psychiatrist's Office/Exam | 140 | 1 per psychiatrist programmed |
| Psychologist's Office/Exam | 140 | 1 per psychiatrist programmed |
| Nurse Practitioner Office/Exam | 140 | 1 per nurse practitioner programmed |
| Social Worker's Office/Exam | 140 | 1 per social worker programmed |
| Technician's Office (Social Work or Psychology) | 100 | 1 per technician programmed |
| Group Therapy | 200 | 1 per clinic. (2 per clinic with 3 or more psychiatrists) |
| Treatment Room | 150 | Individual study |

**Psychiatry**

| | | |
|---|---|---|
| Psychiatrist's Office/Exam | 140 | 1 per psychiatrist programmed |
| Nurse Clinician Office/Exam | 140 | 1 per nurse clinician programmed |
| Technician's Office (Social Work or Psych) | 100 | 1 per technician programmed |
| Group Therapy Room | 200 | 1 per clinic (2 per clinic with 3 or more psychiatrists programmed) |
| Mirror Room 100 | 100 | |
| Treatment Room | 150 | Individual Study |

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**Child Psychiatry**

| | | |
|---|---|---|
| Play Observation | 120 | 1 per clinic with child psychiatry program. Additional rooms may be programmed by individual study |
| Doctor's Office/Exam | 140 | 1 per doctor programmed |

**Clinical Psychology**

| | | |
|---|---|---|
| Psychologist's Office/Exam | 140 | 1 per psychologist programmed |
| Psychological Testing | 100 | Individual Study |

**Social Work**

| | | |
|---|---|---|
| Social Worker's Office | 140 | 1 per social worker programmed |
| Technician's Office (Social Work or Psychology) | 100 | 1 per technician programmed |
| Group Therapy Room | 200 | 1 per clinic (2 per clinic with 3 or more psychiatrists programmed) |

**Surgical Clinics**

**General Surgery**

| | | |
|---|---|---|
| Treatment Room | 150 | 1 per 6 exam rooms |
| Recovery Room | 120 | per space, 1 space per 2 surgical treatment rooms |
| Patient Toilet | 50 | 1 per recovery room |
| Nurse Practitioner Office | 100 | 1 per clinic when nurse practitioner Office programmed |
| Exam Room | 100 | 2 per nurse practitioner |
| Endoscopy Room | 150 | Individual Study |
| Patient Toilet | 50 | 1 per endoscopy room |
| Proctoscopic Room | 150 | 1 per 4 providers. 5 or more providers require special study. |
| Dressing Cubicle | 40 | per cubicle, 2 per procto room |
| Patient Toilet | 50 | 1 per procto room |

**Neurosurgery**

| | | |
|---|---|---|
| Doctor's Office | 100 | 1 per doctor programmed |
| Exam Room | 100 | 2 per doctor programmed |

**Orthopedic/Podiaty**

| | | |
|---|---|---|
| Podiatrist's Office | 100 | 1 per podiatrist programmed. |
| Exam Room | 100. | 2 per podiatrist programmed. |
| Treatment Room | 150 | Individual Study |

| | | |
|---|---|---|
| Appliance Adjustment & Modification Shop | 140 | 1 man shop |
| | 440 | 2 man shop |
| Appliance Manufacturing Shop (Brace Shop) | 1000 | Individual Study |
| Gait Observation Lane | 135 | 1 per clinic |
| Cast Room | 100 | per table, Number of tables = .4 X ortho visits/wk / 1 visit per hr X 35 hr per wk |
| Plaster Prep & Storage | 50 | plus 10 NSF per table; 1 per Orthopedic Service |
| Splint & Crutch Storage | 50 | plus 10 NSF per table; 1 per Orthopedic Service |
| Appliance Fitting Room | 80 | per room, 1 per 3 orthopedic surgeons programmed |
| General Radiographic Room | 270 | Individual Study |
| Film Processing | 90 | 1 if general radiographic service is provided |

**Plastic Surgery**

| | | |
|---|---|---|
| Treatment Room | 150 | 1 per 6 exams |
| Recovery Room | 120 | per space, 1 space per 2 surgical treatment rooms |
| Patient Toilet (wc, lav) | 50 | 1 per recovery room |

**Thoracic -Vascular**

| | | |
|---|---|---|
| Microvascular Lab | | Special Study |
| Treadmill Room | 200 | Individual Study |
| Dressing Cubicle | 40 | 1 per treadmill room |
| Patient Shower | 30 | 1 per treadmill room |

**Urology**

| | | |
|---|---|---|
| Cystoscopy Rooms | * | cystoscopic rooms = (annual urology visits/52) x 0.5 / 0.6 proc per hr per room x 30 hr per wk |
| Cysto w/Fluoro | 300 | 1 per clinic if TURs performed |
| Cysto - Rad | 300 | Number from formula minus number of cystoscopy rooms with fluoroscopic capability. Includes x-ray control booth. |
| Control Booth 100 | 100 | |
| X-Ray Reading Room | 100 | |
| Scrub Area 60 | 60 | 60 per cysto room |
| Urology Darkroom and Workroom | 90 | 1 per urology service when 2 or more cysto rooms are provided |
| Dressing Cubicle | 40 | per cubicle, 2 per cysto room |
| Patient Toilet | 50 | 1 per cysto room |
| Urology Treatment Room | 150 | Individual Study, maximum 1 per clinic |
| Recovery room | 120 | per space |
| Recovery Toilet | 50 | |
| Urodynamics Room | 100 | |

| | | |
|---|---|---|
| Dressing Cubicle | 40 | per cubicle, 2 per treatment room |
| Toilet | 50 | 1 per IVP room |
| Urology Lab | 80 | If 4 or less exam rooms. Add 40 NSF if more than 4 exam rooms. 120 NSF maximum. 1 lab per clinic |
| Patient Toilet (wc, lav) | 50 | 1 per urology exam room |

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**Military/Environmental Clinics**

**Community Health Nursing**

| | | |
|---|---|---|
| Health Nurse's Office | 100 | 1 per health nurse programmed |
| Exam Room | 100 | 1 per health nurse programmed |
| Patient Toilet (wc, lav) | 50 | 2 per activity |
| Waiting | 16 | 10 spaces minimum |
| Storage | 100 | multiplier for larger clinics |
| Secretary/Clerk | 100 | per person programmed |
| Communicable Disease Interviewing Room | 100 | 1 per activity |

**Preventive Medicine**

| | | |
|---|---|---|
| Preventive Medicine Chief's Office | 140 | 1 per Chief, Preventive Medicine activity programmed |
| Environmental Engineer's Office | 100 | 1 per environmental engineer programmed |
| Environmental Sanitarian's Office | 100 | 1 per environmental sanitarian programmed |
| Medical Entomologist Office | 100 | 1 per medical entomologist |
| Nuclear Medical Science Officer's Office | 100 | 1 per nuclear science officer programmed |
| Health Physics Technician office | 100 | 1 per technician |
| Health Assistant Office | 100 | 1 per clinical specialist programmed |
| PVT MED Specialist's Office | 100 | 1 per technician programmed |
| Literature/Forms Storage | 80 | 1 per activity. Share with Health Nurse. |
| Secretary/Clerk | 120 | 1 per section |
| Safety Officer/NCO | 100 | 1 per safety officer/NCO programmed |
| Industrial Hygienist Office | 100 | 1 per industrial hygienist programmed |
| Industrial Hygiene Lab | 100 | 1 per activity |
| Water Lab | 100 | 1 per activity |
| Nuclear Medical Science Lab | 150 | When nuclear medicine science office authorized. w/Shield for Walls/Doors/Ceilings/Floor as appropriate |

| | | |
|---|---|---|
| **Aerospace, Aviation, and Submarine Medicine** | | |
| Treatment Room | 150 | 1 per clinic |
| Optometrist's Eye Exam Room and Office | 160 | 1 per optometrist programmed |
| **Occupational Health/Civilian Employee Health Clinic** | | |
| Audiobooth | 110 | 1 man double wall booth |
| | 210 | 4 man double wall booth |
| | 260 | 6 man double wall booth |
| Screening Eye Testing | 100 | 1 per clinic |
| Secure Area for Health Record Storage | * | Individual Study, 1 per clinic |
| Clerk/Secretary Office | 120 | minimum or 80 NSF per FTE assigned |
| Interviewing & Counseling Room | 100 | 1 per 2 nurses assigned |

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| | | |
|---|---|---|
| **Industrial Hygiene, Environmental and Bioenvironmental Sciences** | | |
| Preventive Medicine Office | 100 | 1 per PMO programmed |
| Health Nurse | 100 | 1 per health nurse programmed |
| Environmental Engineer | 100 | 1 per environmental engineer programmed |
| Environmental Sanitarian | 100 | 1 per environmental sanitarian programmed |
| Medical Entomologist | 100 | 1 per medical entomologist programmed |
| Nuclear Medical Science Officer | 100 | 1 per nuclear medical science officer programmed |
| NCOIC | 100 | 1 per clinic |
| Health Assistant | 100 | per clinical specialist programmed |
| PVTMED Specialist | 100 | 1 per technician programmed |
| **Eye, Ear, Nose, and Throat Clinics Eye, Ear, Nose, and Throat Clinics** | | |
| **Ophthalmology/Optometry** | | |
| Optometrist Eye Exam Room/Office | 195 | per room, 2 exam/office room per optometrist up to 3 optometrists. Then 1 exam office per optometrist. Design space according to administrative needs. One exam office may be located in Aeromedical.. |
| Ophthalmologist Office | 100 | 1 per ophthalmologist programmed |
| Ophthalmologist Exam Room | 140 | per room, 2 exam rooms per ophthalmologist |
| Screening Eye Testing | 100 | per station, Number of stations= Eye Clinic visits per week /6 visits per hr X 35 hrs per wk |
| Eye Treatment Room | 150. | per ophthalmology service |
| Laser Treatment Room | 150 | per ophthalmology service |
| Fundus Camera Room | 150 | For two cameras |
| Electroretinography | | |

| | | |
|---|---|---|
| Room | * | Individual Study |
| Fitting / Dispensing | 120 | minimum; 1 per Eye Clinic |
| | 150 | staff of 3 to 5 |
| | 200 | staff over 5 |
| Equipment Storage | 100 | 1 per clinic |
| Visual Field / Perimetry | 100 | 1 per Eye Clinic, includes Humphries and manual testing |
| Contact Lens | 120 | Per Department |
| Low Vision Training Aids | 100 | Per Department |
| Photo Processing | 75 | as required to Support Fundus Camera |
| (Ultrasound) | 140 | per Ophthalmology Service, size adequate for A-scan, B-scan, and pachymetry units |
| Seated Recovery | 60 | per seat. Locate with Ambulatory surgery |
| Chief Optical Fab | 100 | This section only if Optical Fabrication Function |
| Optical Fab Admin | 80 | per optical fab admin staff, min 100 |
| Optical Fab stations | 100 | Per optical fabricators |
| Optical Fab Parts Storage | 100 | Optical Fab storage area |
| **Otorhinolaryngology** | | |
| Doctor's Office | 100 | 1 per doctor assigned |
| ENT Exam Room | 100 | per room, 2 per ENT physician |
| ENT Treatment Room | 150 | per room, 1 per 6 ENT exam rooms |
| Recovery Room | 120 | per room, 1 per ENT Clinic |
| Toilet | 50 | 1 per recovery room |
| Vestibular Exam Room | 150 | per room, 1 per clinic |
| BAER Room | * | Only at facilities w/ENT teaching mission. Special study. |
| Bone Dissection | * | Only at facilities w/ENT teaching mission. Special study. |

Updated 28 May 93

| | | |
|---|---|---|
| **Audiology** | | |
| Audiologist's Office/Exam | 120 | per room, 1 per audiologist programmed |
| Audiobooth Room (Screening) | 110 | 1 man double wall booth |
| | 210 | 4 man double wall booth |
| | 260 | 6 man double wall booth |
| Audiobooth Suite | 190 | per suite when audiologist programmed. (two room suite) |
| Hearing Aid Fitting/Classroom | 200 | 1 per clinic when audiologist is programmed. |
| | omitted from new criteria | |
| Hearing Aid Laboratory | 100 | 1 per clinic when audiologist is programmed |
| Auditory Electrophysiological Laboratory | 100 | 1 per clinic when audiologist is programmed |
| **Speech Therapy** | | |

| | | |
|---|---|---|
| Speech Therapist Office/Exam Room | 120 | per room, 1 per therapists programmed |
| Speech Therapy Classroom | 150 | minimum; 18 NSF per patient per class. Individual Study |
| **Other Clinics** | | |
| **Physical Medicine** | | |
| Electromyography (EMG) Room | 100 | |
| EMG Work Area | 80 | per area, plus 10 NSF per clinic for each add'l EMG station |
| Dressing Cubicle | 40 | per EMG room |

# C. DENTAL CLINICS

## 1.0 PURPOSE AND SCOPE

This section sets forth space planning criteria for the dental functions at military installations including independent dental facilities and those which are part of another medical facility.

The criteria have been developed on the basis that dentistry will continue to be dynamic and progressive and that the highest quality of care and the most modern facilities are essential to accomplish the cumulative dental work load with available dental manpower.

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## 2.0 DEFINITIONS

**Self Preparation Area** - An area containing mirror and sink for the proper cleansing of appliances and teeth by patients prior to treatment.

**Oral Hygiene Treatment Room (OHTR)** - An area similar to a DTR, utilized by an oral hygienist to treat dental patients.

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## 3.0 POLICIES

To the extent possible, dental facilities will be consolidated into the minimum number of facilities consistent with providing dental care effectively to the population served. In the case of dental facilities of five dental treatment rooms (DTRs)or less, when no other medical service facilities are available, they may be combined with other compatible nonmedical facilities.

Dental facilities will be combined with other medical facilities when feasible to provide dental care to the area beneficiaries as a part or all of the installation's dental requirement. Dental facilities may be combined with hospitals for the following reasons: (1) to provide dental care when required as an adjunct to hospital medical care; (2) to support the hospital's oral surgery program.

The dental facility staff required is determined by the process below.

Determine all population categories served. (Population should correspond to verified RAP system data.)

Calculate estimated procedures.

**Level of Care (Active Duty).** The level of care factor to be utilized under this calculation has been determined to be 24 procedures per active duty member per year. (Baseline raw procedures for active duty beneficiary FY 84.) Multiply level of care factor times active duty population to arrive at the estimated number of active duty procedures required per year.

**Level of Care (Retirees, Dependents, and Survivors).** Space will not be programmed to provide routine and specialty dental care to retirees, dependents, or survivors. At an approved training site, where space is required for these patients in support of training and in excess of space required for treatment of active duty personnel, the provisions of P.L. 97-337 will be apply.

**Active Duty Dependent Care Overseas and in CONUS where appropriate dental care is not available**. The level of care factors for dependents of active duty overseas and in CONUS where appropriate dental care is not available, shall be the same as those for active duty. The certification of the absence of appropriate dental care will be made by a DoD area survey.

Sum the total procedures and convert to monthly requirements. (i.e, divide by 12).

**Use dentist requirement table to translate procedures to dentist requirements.**

| Procedures per month | | Dentists |
|---|---|---|
| 0 - | 750 | 1 |
| 751 - | 1,750 | 2 |
| 1,751 - | 3,000 | 3 |
| 3,001 - | 4,000 | 4 |
| 4,001 - | 4,750 | 5 |
| 4,751 - | 5,750 | 6 |
| 5,751 - | -6,750 | 7 |
| 6,751 - | 7,750 | 8 |
| 7,751 - | 8,750 | 9 |
| 8,751 - | 9,500 | 10 |
| 9,501 - | 10,500 | 11 |
| 10,501 - | 11,750 | 12 |
| 11,751 - | 12,750 | 13 |
| 12,751 - | 13,750 | 14 |
| 13,751+ | | 1 dentist per 1,000 procedures for every additional 1,000 procedures over 13,751. |

Each service will determine mix of dental provider team (specialists, general duty dental officers, hygienists, expanded duty dental therapists) needed to meet requirements. Add the number of interns and residents when planning a teaching facility.

**Apply the following DTR factors to determine total number of DTRs.**

| | |
|---|---|
| 1.5 DTRs | 1.5 DTRs per general duty dentist |
| 2.0 DTRs | 2.0 DTRs per specialist |
| 1.0 DTR | 1.0 DTR per oral hygienist |
| 1.0 DTR | 1.0 DTR per dental officer in training |
| 0.5 DTR | 0.5 DTR per expanded duty therapist |

- When the number of dentists required is calculated to be five (5) dentists or less, use a DTR factor of 2 DTRs per dentist.
- Clinics requiring 6 dentists will program a minimum of 10 DTRs.
- Based on the number of DTRs and total manpower requirements, complete the facility sizing.

The amount of space programmed to support requirements shall be further limited by the anticipated capabilities of the dental staff projected to be assigned or otherwise available to the facility.

Space programmed above projected requirements must be justified by independent study.

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## 4.0 PROGRAM DATA REQUIRED

Projected staffing of all dental facilities on the installation and the proposed staffing for the dental facility under study.

Number and size of all dental facilities on the installation and the specialty capabilities of each.

## 5.0 SPACE CRITERIA

The following listing indicates the areas normally found in the dental facility, the basis for planning, and the planning range.

Any deviation from these criteria will be documented and presented to OASD(HA) for approval.

Installation Dental Administrative Complex: Space for the Installation Dental Administrative Complex may be programmed with a dental facility only if personnel are projected to occupy these positions on a full-time basis. When

the installation dental surgeon is also the chief of a dental facility, duplicate offices will not be programmed.

| FUNCTION | NSF AUTHORIZED | PLANNING RANGE/COMMENTS |
|---|---|---|
| **Dental Administration** | | |
| See Section 5.0, Administration (Annex A) for Common Administrative Spaces. | | |
| Office for Post Dental Surgeon, | 180 | less than 20 DTRs |
| | 200 | 20 - 30 DTRs |
| Base Dental Surgeon or Senior Dental Office | 220 | over 30 DTRs |
| Conference Room/ Library | 240 | 10-17 personnel |
| | 280 | 18-29 personnel |
| | 380 | 30 or more personnel |
| Central Issue & Supply | 110 | minimum, 600 NSF Max: 10 NSF per DTR projected for the installation +10 NSF for precious metals |
| Dental Repair | 160 | per Repairman. Includes Repairman and his equipment if programmed |
| Administrative Support | 150 | 1 per installation to accommodate office machine and admin support. Individual study. |
| Dental Prosthetics | 400 | minimum, plus 50 NSF per Laboratory technician over 3. Number of Prosthetic Laboratory technicians. |
| Ceramic Room | 120 | If number of Prosthetic Lab (Dust free) technicians is greater than 2. |
| **Administrative Areas** | | |
| Department/ specialty | 100 | Department/ 100 per office, 1 per Dental facility specialty specialty |
| Dental Records | | Dental Records NSF = $\frac{\text{Proj Records x .65}}{\text{70 Records per LF}}$ |
| | | l per dental facility |
| Reception area | 120 | Reception area 120 |
| Waiting Area | | Waiting Area |
| Waiting/ Clothing Alcove | 110 | Waiting/ 110 Facility w/less than 5 Clothing Alcove DTR & OHTR |
| Waiting | 110 | Waiting 110 5 DTRs & OHTRs or over: |
| Seating Area | 16 | Seating Area 16 (Add) per seat (1.7 spaces per DTR & OHTR over 4) |

| | | |
|---|---|---|
| Clothing Alcove | 0.75 | Clothing 0.75 (Add) per DTR & OHTR |
| Housekeeping Supplies & Equipment | 0 | Less than 5 DTRs & OHTRs Use space in Cleaning supply |
| | 50 | 5-11 DTRs & OHTRs |
| | 100 | 12-20 DTRs & OHTRs |
| | 100 | Over 20 DTRs & OHTRs, Add 2 NSF per DTR & OHTR over 20. |
| Cleaning supply | 60 | per Floor. 1 per dental facility unless multi-story |
| Mailbox area | | Include .32 NSF per mailbox in administrative area if dental clinic is not supported by a parent facility. |
| Library/Conference and classroom space | | Library/Conference of the dental surgeon or senior dental officer meets the requirements of most non-teaching dental facilities. In separate facilities the following factors will be used to determine the conference/classroom space |
| (1) Speaker's audiovisual equipment | 120 | |
| (2) Space for seats | 8 | per conferee-trainee. Add to above NSF |
| Night Duty Rooms 1 per dental facility | | 1 per dental facility |
| (1) Duty Technician | 100 | Remaining in the facility overnight in addition to or in lieu of CQ. |
| Toilet/shower | 70 | 30 NSF per wc and lav plus 10 NSF for shower. |
| (2) Dental Officer of the Day (DOD) | 100 | Remaining in the facility overnight in addition to CQ. |
| Toilet/showers | 70 | 30 NSF per wc and lav plus 10 NSF for shower. |
| Lounge | 100 | minimum, maximum 200 NSF. Add 10 NSF per person authorized over 10. |
| Patient Toilets: | Patient Toilets: | Patient Toilets: |
| Male (wc, lav) | 60 | NSF per fixture. 2 (wc, lav) per 20 seats. |
| urinal | 30 | One per 40 men or fraction thereof. |
| Female (wc, lav) | 60 | 30 NSF per fixture. 2 (wc, lav) per 15 seats. |
| Staff Toilets: | | Staff Toilets: |
| Male (wc, lav). | 60 | minimum. 30 NSF. (lav, wc) per 20 men. |
| Female (wc, lav) | 60 | minimum. 30 NSF per fixture (lav, wc) per 15 women. |
| Staff Lockers | | |
| Male | 100 | minimum. Add 6.5 NSF per FTE staff greater than 10. |
| Female | 100 | minimum. Add 6.5 NSF per FTE staff greater than 10. |

**Treatment Areas**

| | | |
|---|---|---|
| DTRs/OHTRs | 120 | per sizing guidance<br>1.5-per General duty dentist;<br>2.0-per specialist<br>1.0-per dental officer in training<br>0.5- per expanded duty therapist |

**Notes:** (1) When the number of dentists required is calculated to be five (5) dentists or less, use a DTR factor of two (2) DTRs per dentist.

(2) Clinics requiring six (6) dentists will program a minimum of 10 DTRs.
(3) Teaching DTRs: Add 50 NSF to one (1) DTR per dental clinic as well as an expanded (+50 NSF) DTR in each residency specialty conducting an approved training program.

| | | |
|---|---|---|
| Consultation Office | 100 | minimum or 80 NSF per officer if multiple occupancy. 1 per two dentists not authorized other consultation space. Example: Head, Orthodontia Specialty receives one consultation office. Other Orthodontists receive one consultation office per every two doctors. |
| X-Ray Exposure | 0 | 1-2 DTRs & OHTRs. Locate unit in DTR |
| | 110 | 3-13 DTRs & OHTRs plus 36 NSF if panoramic unit is programmed. Provide 1 exposure room and not less than 1 per floor in a multistory facility Plus 36 NSF if tomography capability is planned. Special study required if tomograph is included. |
| | 110 | More than 13 DTRs & OHTRs plus 36 NSF if panoramic unit is programmed. Plus 36 NSF if tomo is required (special justification ) Provide 1 additional exposure room per 13 DTRs & OHTRs and not less than 1 per floor in a multistory facility |
| X-Ray Developing. | 60 | plus 15 NSF if automatic processor is programmed and 10 NSF for Panographic duplicator, if required by mission. 1 per exposure room or add 15-18 NSF per exposure room in excess of 2 served by developing room. |
| Limited Dental Prosthetics Laboratory | 220 | 1 per dental facility including a second sink for decontamination. |
| Recovery Room | 110 | 1 per dental facility. |
| RR Toilet | 50 | 1 per recovery room |
| Casting/Grinding Room | 120 | plus 50 NSF for each additional workstation in Area Dental Laboratories. Workstations will be determined by special study. |
| Preventive Dentistry | 150 | Maximum 1 per dental facility to accommodate necessary audio-visual equipment and phase contrast microscope. |
| DTR Support Area | 90 | 1 per 4 DTRs |

**Dental Support Spaces**

| | | |
|---|---|---|
| Linen | 80 | Linen 80 1 per dental facility |
| Supplies | | Provided only in dental facilities separate from the installation dental administration complex.) |
| | 80 | 4 DTRs & OHTRs |
| | 110 | 5-19 DTRs & OHTRs |
| | 150 | 20 + DTRs & OHTRs |
| Central Sterilization Room (Small) | 140 | Less than 10 DTRS |
| Central Sterilization Room (Medium) | 240 | Supports 11-20 DTRs |
| Central Sterilization Room (Large) | 360 | Supports over 20 DTRs |
| Study/Office | 120 | per Office. 1 per 2 residents and/or interns at a facility conducting an approved residency and/or internship program |

| | | |
|---|---|---|
| Scrub & Gowning Area | 60 | Special justification |
| Cephalometrics | 150 | 1 per orthodontic or surgical servics |
| Model Storage | 70 | plus 40 NSF per authorized specialty service. 1 per clinic |
| Orthodontic Laboratory. | 110 | for first orthodontist. 36 NSF per additional orthodontist. 1 authorized if orthodontist(s) assigned. |
| Self Preparation Area | 20 | 1 per authorized orthodontist |
| Dental Support Utility Room | 80 | only in open bay dental clinics |
| Soiled Utility/Trash Room | 120 | |

# G. NURSING UNITS

## 1.0 PURPOSE AND SCOPE

This document specifies the space planning criteria for Nursing Units.
Nursing Units, as used in these criteria, do not include the following functional areas which are included in other specific criteria:

| Function | Criteria |
|---|---|
| Examination & treatment facilities other than those required specifically for a nursing unit. | Hospital Clinics |
| Post-anesthesia recovery Surgery | Surgery |
| Nurseries, post-partum/ antepartum beds. | OB, Labor & Delivery |
| Offices for chief/director, assistant chief/directors and administrative assistants/ superintendents of nursing service. | Hospital Clinics or Administrative Activities |
| Office for physicians nurse practitioners physician administrative activities assistants, social workers, psychologists, etc. | Office for physicians Hospital Clinics or |
| Offices for nursing service education. | Administrative Activities |

---

## 2.0 DEFINITIONS

Nursing units are those groups of rooms and facilities that are required for the nursing care of hospital inpatients including intensive, acute and light care patients. These units include, but are not limited to, the following services: Medical-Surgical; Intensive Care; Coronary Care; Psychiatric (including alcohol rehabilitation); Pediatrics; and Light Care. A nursing unit consists of, but is not limited to, the following:

Patient bedrooms with showers, toilets, and lavatories.

Tub rooms and wheelchair showers.

Nurses station area which includes the nursing station with a monitor area, ADP terminal area, nurses workroom/charting area, medication preparation/unit dose drug room, and physician workrooms.

Support facilities which include soiled utility, clean linen room, trash/soiled linen collection, nourishment center/galley/pantry, litter and wheelchair storage, treatment room, supply and equipment area, janitor's closet, Charge/Head nurse office, senior corpsman/NCOIC office, nursing conference room, staff lounge, staff lockers, and staff toilets.

Dayrooms, waiting areas, playrooms, and public toilets.

Light care is that level of supportive health care required by a patient who has a limited health deficit which prevents the resumption of normal activities but who is, at the same time, essentially self-supporting, self-sustaining, and mobile. Because of the minimal level of care required by the light care patient, health facilities to support this patient shall be less extensive than acute care units.

Multi-unit support offices and conference rooms. Multi-unit areas include offices for the: area patient care coordinator (APCC); clinical nursing specialist/instructor; ACPO/NCOIC; unit/supply manager; and conference room. These are areas which support more than one nursing unit.

---

## 3.0 POLICIES

The ratio of patient beds in one and two patient bedrooms will be as follows for hospitals with 50 beds or less:

A minimum of 10% or a maximum of 15% of patient beds will be in one-bed rooms.

The remaining 90% to 85% of patient beds will be in two-bed rooms.

The ratio of patient beds in one, two and four patient bedrooms will be as follows for hospitals with more than 50 beds:

A minimum of 10% or a maximum of 15% of patient beds will be in one-bed rooms.

A maximum of 65% of patient beds will be in two-bed rooms.

A minimum of 25% of patient beds will be in four-bed rooms.

Intensive care, coronary care, isolation, and psychiatric seclusion beds are to be excluded in determining patient room ratios.

These ratios are to be applied to total beds, excluding intensive care, coronary care, isolation, and psychiatric seclusion beds and do not have necessarily apply to individual nursing units.

**Single Bed Isolation Rooms**

Pediatric isolation beds will be programmed on the following basis:

| Pediatric Bed Capacity | Number of Isolation Beds |
|---|---|
| 16 or less | 2 |
| 17 - 25 | 3 |
| 26 - 33 | 4 |
| 34 - 40 | 5 |

Medical-Surgical isolation beds will be programmed on the basis of two per Medical-Surgical unit.
Intensive Care isolation beds will be programmed on the basis of one per each four Intensive Care beds.

Psychiatric units do not usually require isolation rooms.

**Intensive Care and Coronary Care Units.**

The number of Intensive Care Unit (ICU) and Cardiac Care Unit (CCU) beds will be supported by a specific justification. The justification will address factors such as hospital mission, expected mission change, projected work load, and geographical location. If space is requested for a laboratory to support these special care functions, it will be supported by a similar justification. Guidelines pertaining to ICU and CCU capabilities can be found under the Occupancy Rates chapter of this criteria.

**Light Care Beds**

Light care bed requirements are determined by analysis of active duty diagnostic categories for which light care beds are appropriate.

Specifically identified light care bed units will be programmed only when there is a requirement for 30 or more light care beds.

When the requirement for light care beds is calculated as 29 beds or less, these beds will be programmed as medical-surgical nursing unit beds based on medical-surgical nursing criteria.

Light care nursing units shall not exceed 50 beds per unit. In the event light care requirements are computed to be between 51 to 59 beds, one to nine beds, respectively, shall be programmed as medical-surgical beds to maintain the planning range of a minimum of 30 beds and a maximum of 50 beds.

While an oxygen and suction system are not required for light care patients, design of light care units will be such that installation of acute-care support systems (i.e., oxygen, suction, etc.) may be added without extensive facility alteration.

Light care beds when constructed in structures housing inpatient activities will comply with Health Care Occupancy requirements of NFPA 101.

**Nurses stations and support facilities will be provided as follows:**

A nurses station and support facilities will be provided for each medical-surgical, psychiatric, pediatric unit, and light care unit.

Each ICU and CCU unit will have a separate nursing station and support facilities.

No more than 40 beds may be programmed per nursing unit (excluding light care, ICU, and CCU units).

Sub-nurses stations may be included if supported by a justification that addresses decentralization/team nursing concepts, and the availability of adequate staffing to implement such concepts. Support facilities will be centrally located at each nursing and sub-nursing station.

When necessary, multi-units support offices and conference rooms may be programmed on a basis of one complex of rooms per specialty.

**Physician Offices:** Medical facilities with physicians designated as ward medical officers/unit directors may contain office space on the nursing units when it is determined such offices are required on or adjacent to the nursing units.

**Bedrooms:**

The planning ranges for bedrooms include space for the bed, patient and visitor seating, and necessary support equipment.

When the toilet and shower space is designed as an offset to the room, and an entry way is created, the space occupied by the entry is circulation space, it is not counted as part of the NSF allowed for the patient bedroom.

Patient bathrooms will consist of one toilet, one lavatory, and one shower. Shower dimensions will be a minimum of nine square feet.

Bathrooms in four-bed rooms will have one shower, one toilet, and one lavatory. A second lavatory will be located within the bedroom.

Bathrooms in ICU and CCU bedrooms do not require showers.

Bathrooms in Pediatric rooms will include a combination tub/shower.

An anteroom with lavatory will be provided for each isolation room.

Nurse servers into the patient bedrooms may be provided when the logistics system entails the use of an exchange cart system.

**Seclusion Bedrooms:**

Two seclusion bedrooms will be provided for each psychiatric nursing unit, or,

One seclusion bedroom, sized as a typical one patient bedroom, may be provided at hospitals without a planned psychiatric nursing unit.

Each seclusion room will include an anteroom with entry to the bathroom through the anteroom.

Modification of the space criteria may be necessary to meet specific mission requirements but any such modification will require OASD(HA) approval. Special requirements for spaces not covered by this document will be developed on an individual basis and will also require OASD(HA) approval.

---

## 4.0 PROGRAM DATA REQUIRED

Bed requirements, by specialty, determined from the DoD bed sizing confidence criteria. (see Introduction Section 1.0)

Identification of teaching/non-teaching hospitals.

Projected male and female staffing requirements by nursing unit.

Analysis of ICU/CCU bed requirements. (if ICU/CCU beds are required)

Determination that a exchange cart logistics system will be employed. (If nurse servers are required.)

Determination that a computerized patient monitoring system will be employed.

Identification and justification for programming any of the following special purpose rooms.

Unit Supply Manager Office, Area Patient Care Coordinator Office, Nursing Section Supervisor Office, Senior NCOIC Office, Clinical Nurse Specialist Office, Nursing Service Section Clerk Office

Determination that an adolescent lounge is required.

## 5.0 SPACE CRITERIA

The spaces listed below are normally required for nursing units in DoD hospitals. It is not intended that planners include all functional areas listed herein, unless there is a valid requirement at the installation under consideration.

Space planning criteria are listed in the following tables:

| FUNCTION | NSF AUTHORIZED | | | | | PLANNING RANGE/ COMMENTS |
|---|---|---|---|---|---|---|
| | M/S | PEDS | ICU CCU | PSYCH REH | LIGHT CARE | |
| **Patient Bedrooms** | | | | | | |
| One Bed | | | | | | |
| Patient Bedroom 140 140 200 NR NR | 140 | 140 | 200 | NR | NR | Patient Bedroom 140 140 200 NR NR |
| With Mobilization | 170 | 170 | 200 | 170 | 170 | |
| Bathroom | 70 | | | 70 | 70 | Toilet, shower, lav. |
| | | 60 | | | | Tub/shower combination |
| | | | 50 | | | 50.No shower, toilet, lav, per each two single rooms |
| Lavatory (in room) | | 20 | 20 | | | |
| Two Bed Patient Bedroom With Mobilization | 220 | 220 | NR | 220 | 220 | |
| Bathroom | 70 | | NR | 70 | 70 | Bathroom 70 NR 70 70 Toilet, shower, lav. |
| | | 60 | | | | Tub/shower combination |
| Lavatory (in room) | | 20 | | | | |
| Four Bed Patient Bedroom | 440 | 440 | NR | 440 | 440 | |
| Bathroom | 70 | | NR | 70 | 70 | Toilet, shower, lav. |
| | | 60 | | | | Tub/shower combination |
| Lavatory (in room) | 20 | 20 | | 20 | 20 | |
| Isolation Bedroom | 140 | 140 | 200 | NR | 140 | |
| Bathroom | 70 | 70 | | NR | 70 | Toilet, shower, lav. |
| | | | 50 | | | No shower |

| | | | | | | |
|---|---|---|---|---|---|---|
| Isolation anteroom | 60 | 60 | 60 | NR | 60 | |
| Seclusion Bedroom | | NR | NR | 100 | NR | |
| | 140 | | | | | Programmed only when no psych unit is planned. |
| Seclusion Anteroom | | NR | NR | 60 | NR | |
| | 60 | | | | | Programmed only when no psych unit is planned. |
| Bathroom | 70 | NR | NR | 70 | NR | Programmed only when no psych unit is planned. Entry through anteroom. |
| Nurse Servers | 6 | 8. | 8. | 6 | 6 | Nurse Servers 6 8 8 6 6 Per bed. |
| Clothing Wardrobe. | 5 | 5. | 5 | 5 | 5 | Per bed. |
| **Nursing Functions (Per Nursing Unit)** | | | | | | |
| Nurses Station(includes ADP & monitoring equipment space for ward clerk) | 150 | 150 | 150 | 150 | 150 | An additional 5 NSF is required for each bed greater than 40. When unit is 1-4 beds, add 50 NSF for each additional 4. |
| Sub-Nursing | 100 | 100 | 100 | 100 | NR. | When justified. |
| Treatment Room | 150 | 150 | NR | 150 | 150 | |
| Workroom & Charting | 150 | 150 | 150 | 150 | 150 | |
| Medication prep/ Unit Dose | 90 | 90 | 90 | 90 | 90 | |
| Nursing Conference/ Report Room | 150 | 150 | 150 | 150 | NR | |
| Office | 100 | 100 | 100 | 100 | 100 | |
| NCOIC/Senior Corpsman Office | 100 | 100 | 100 | 100 | 100 | |
| Physician Workroom/ Physician Workroom/ Dictation | 150 | 150 | 150 | 150 | NR | Physician's workroom may be programmed a teaching hospitals. |
| Bathing (Per Nursing Unit) | 100 | 100 | 100 | 100 | 100 | |
| Wheelchair Shower | 80 | 80 | 80 | 80 | 80 | Not required in ICU/CCU if a Step Down Unit is immediately adjacent or available to the ICU/CCU. |
| **Support Facilities (Per Nursing Unit)** | | | | | | |
| Clean Linen | 100 | 100 | 100 | 100 | 100 | |
| Clean Utility | 150 | 150 | 150 | 100 | 100 | Includes space for patient laundry. |
| Soiled Utility | 120 | 120. | 120 | 120 | 120 | Includes space for patient laundry. |
| Equip. Storage | 150 | 200 | 200 | 100 | 100 | Additional space may be provided with justification. Orthopedic units Storage |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ortho Equip. | 150 | | | | | only, add 30 NSF per circ - o-lectric bed or turning frame. |
| Mobile X-Ray Unit Alcove | 40 | 40 | 40 | NR | NR | One space per each specialty or one per 90 beds. |
| Emergency Equip. Alcove | 20 | 20 | 20 | 20 | 20 | Crash Cart |
| Nourishment Center/Galley/ Pantry | 100 | 100 | 100 | 150 | 100 | |
| Litter/Wheel Chair Storage | 80 | 80 | 80 | 80 | 80 | Additional 10 NSF for each 10 beds over 30 beds per unit. |
| Janitor's Closet | 40 | 40 | 40 | 40 | 40 | |
| Computer Room | NR | NR | 70 | NR | NR | When required for patient monitoring. |
| Laboratory | NR | NR | 100 | NR | NR | Blood Gas. When justified. |
| Admission/Interview Room | NR | 100 | NR | 100 | NR | |

**Dayrooms/Waiting Areas/Group Rooms (Per Nursing Unit)**

| | | | | | | |
|---|---|---|---|---|---|---|
| Dayroom | 200 | 200 | NR | 200 | 200 | minimum or 10 NSF per bed whichever is greater |
| Waiting Room | NR | NR | 150 | NR | NR | Waiting Room NR NR 150 NR NR 16 NSF per bed or 150 NSF whichever is greater |
| Group Activity Room | NR | NR | NR | 300 | NR | 300 + 14 NSF for each bed greater than 20 |
| Group Therapy | NR | NR | NR | 300 | NR | 300 + 14 NSF for each bed greater than 20 |
| Playroom | NR | 150 | NR | 300 | NR | 150 + 10 NSF for each bed greater than 20 |
| Playroom Storage | NR | 50 | NR | 300 | NR | |
| Adolescent Lounge | NR | 150 | NR | 300 | NR | .150 + 10 NSF for each bed greater than 20. Individual Study |

**Staff Lounge/Lockers (Per Nursing Units)**

| | | | | | | |
|---|---|---|---|---|---|---|
| Staff Lounge | | | | | | 10 NSF per staff member greater than 10. 200 NSF max. Special Care areas = 10 NSF |
| Male | 100 | 100 | 100 | 100 | 100 | |
| Female | 100 | 100 | 100 | 100 | 100 | 100 NSF min. |
| Staff/Public Toilets | | | | | | |
| Toilet/Lav | 50 | 50 | 50 | 50 | 50 | 3 per unit one in each locker room & one at nursing station. |
| Public Toilet | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Men, (wc., Lav, urinal) | 90 | 90 | 90 | 90 | 90 | 30 NSF per |
| Women (wc., Lav.) | 60 | 60 | 60 | 60 | 60 | one per nursing unit. 30 NSF per fixture. |

NOTE: Quantity of public toilets may be less dependent upon quantity and location of nursing units; consolidation is encouraged.

**Multi-Unit Areas/Rooms**

| | | | | | | |
|---|---|---|---|---|---|---|
| Conference Room. | * | * | * | * | * | 1 per 25-90 bed facility at 300 NSF. |
| | 200 | 200 | 200 | 200 | 200 | Greater than 90 beds, may program one per nursing specialty |
| Trash/Soiled Linen Collection | 100 | 100 | 100 | 100 | 100 | One room per two nursing units. |
| Consultation Room | 100 | 100 | 100 | 100 | 100 | One room per two nursing units. |

**Special Purpose Room**: Limited to facilities w/designated requirements.

| | | | | | | |
|---|---|---|---|---|---|---|
| Unit Manager | 100 | 100 | 100 | 100 | 100 | One per nursing specialty or 1 per 3 units if nursing service greater than 60 beds. |
| Area Patient Coordinator/ Nursing Section Supervisor Office | 100 | 100 | 100 | 100 | 100 | One per nursing specialty or 1 per 3 units if nursing service greater than 60 beds. |
| Senior NCOIC Office | 100 | 100 | 100 | 100 | 100 | One per nursing specialty or 1 per 3 units if nursing service greater than 60 beds. |
| Nurse Clinical Specialist | 100 | 100 | 100 | 100 | 100 | One per nursing service or 1 per 3 units if serving greater than 60 beds. |
| Nurse Services Section clerk | 100 | 100 | 100 | 100 | 100 | One per nursing service or 1 per 3 units if serving greater than 60 beds. |
| Quality Assurance | 100 | 100 | 100 | 100 | 100 | 1 per nursing facility when FTE assigned |
| Infection Control | 100 | 100 | 100 | 100 | 100 | 1 per facility when FTE assigned |
| Patient Teaching Area | 120 | 120 | | 120 | 120 | 1 per ward, where ward has at least 32 beds |

# K. PATHOLOGY Updated 29 Jan 93

## 1.0 PURPOSE AND SCOPE

This document specifies the space planning criteria for the Pathology Department/Service in DoD medical facilities.

Pathology Department criteria provide the specialized environment and facilities for the receipt, processing, and qualitative/quantitative laboratory analysis of all inpatient and outpatient pathological specimens and tissues and the corresponding recording and reporting of test results to appropriate services.

## 2.0 DEFINITIONS

**Clinical Pathology** - Encompasses the functions of chemistry, urinalysis, hematology, microbiology, serology, and blood banking.

**Anatomical Pathology** - Comprises histopathology, cytology, electron microscopy, photomicrography, autopsy, and cytogenetics.

**Laboratory Module** - Represents the space, storage, and equipment required for two technicians to work comfortably and efficiently. It provides each technician with sit-down work space with chair and storage. Shared services include a sink and refrigerator and space for placement of free standing equipment without encroaching upon circulation space.

College of American Pathologists (CAP) work units are standardized measures of how many minutes of technical and clerical time is required for a given laboratory technique. The values can be found in the College of American Pathologists' "Manual for Laboratory Work load Recording Method." Pathology work load is reported in CAP work units in the MEPRs data system.

## 3.0 POLICIES

The concept of operation for pathology is based on the separation of the physical facilities into two functional divisions: clinical and anatomical pathology. It is also based on the central control for specimen processing, whereby specimens are received and logged at one point and distributed to appropriate work centers based on priority of accomplishment required. Reports of analysis are returned to the same central control point which completes the chain of action. The work areas are composed primarily of laboratory modules in standard configurations grouped according to function.

The standard operation of pathology is based on 8 hours per day, 5 days per week. However, the STAT Lab portion of clinical pathology normally operates 24 hours per day, 7 days per week. Specimen receiving includes desk space, machine stand and access to a refrigerator/freezer, material handling terminal and cart storage if applicable.

Transcription provides space for central dictation recording equipment and individual areas for transcriptionists including area for a desk, dictation outlet, computer terminal (if possible), and machine stand.

Record storage provides space for the file storage of laboratory records and reports in a standard filing cabinet arrangement.

Storage space is provided for open shelf storage units with an entirely separate, securable storage area for hazardous materials.

Media and solution preparation -- space is provided for a standard laboratory module with a fume hood.

Decontamination includes space for work counter with sink, storage and sufficient space and circulation to accommodate soiled material carts.

Open lab space is provided for standard laboratory modules grouped without dividing partitions.

**Blood bank** -- space is provided for separate, environmentally remote standard lab modules with sufficient space and access

for unit blood refrigerator and attendant alarm systems, as well as space for donor areas.

**Microbiology labs** -- space is provided for standard laboratory modules with separate, enclosed modules for each discipline; each provided with sufficient space for a laminar fume hood. Space for a prefabricated type, insulated walk-in incubator is provided.

**Histopathology** -- Work centers include space for gross specimen cutting area with sink, accessible instrument display, fume hood, dictation apparatus and storage; a paraffin impregnation area with sufficient space and clearance to accommodate automated machines and block cooling; a frozen sections preparation area, including space for microtome knives and cryostats; a slide staining and preparation area with slide storage and fume hood; microscope viewing area, including space for dictation. This allowance does not dictate the distribution of the space to a specific function; rather, it provides adequate space that will be allocated to functions during the design process.

Tissue specimen storage space is provided with open shelving for the storage of boxed paraffin blocks and bottled gross specimens, and an area for slide files.

Cytology lab space is provided for standard laboratory modules within one enclosed area, including space and access for fume hood, slide staining and separation and storage.

Autopsy/morgue space is provided for an autopsy table with four-sided access, a gross cutting area, scale, limited refrigeration facilities and storage facilities for specimen displays. Space is also provided for refrigerated storage of cadavers and access to the roll-out shelves when fully extended. Cleanup space is provided including a scrub sink, clean supply and instrument storage, and work counter.

Number and Mix of Laboratory modules.

a. Medical Expense and Performance Reporting System (MEPRs) weighted procedures will be used for determining the number and types of Laboratory Modules. These weighted procedures are equivalent to CAP "work units" and will be referred to as such.

b. The number of Laboratory Modules in each functional area is determined by projected annual CAP work units according to the following formula:

Laboratory Modules = (annual CAP work units)/132,000

where 132,000 represents an estimate of the number of annual minutes of work time supplied by two technicians (i.e., it is a two-man module). For space planning purposes, expansion is permitted in "half-modules" using rounding to the nearest .5. For example, if the formula give 1.3 modules, space can be planned for 1.5, while if the formula gives 1.2, space can be planned for 1.0. For convenience, a table relating CAP work units to Laboratory Modules (in units of .5) is given below.

**c. Laboratory Module Planning Table**

| CAP Work Units Per Year | Lab Modules |
|---|---|
| 33,000 - 99,000 | 0.5 |
| 99,001 - 165,000 | 1.0 |
| 165,001 - 231,000 | 1.5 |
| 231,001 - 297,000 | 2.0 |
| 297,001 - 363,000 | 2.5 |
| 363,001 - 429,000 | 3.0 |
| 429,001 - 495,000 | 3.5 |
| 495,001 - 561,000 | 4.0 |
| 561,001 - 627,000 | 4.5 |
| 627,001 - 693,000 | 5.0 |
| 693,001 - 759,000 | 5.5 |

| | |
|---|---|
| 759,001 - 825,000 | 6.0 |
| 825,001 - 891,000 | 6.5 |
| 891,001 - 957,000 | 7.0 |
| 957,001 - 1,023,000 | 7.5 |
| 1,023,001 - 1,089,000 | 8.0 |

Graduate medical education and other training programs will be considered when planning training space. Individual study and specific justification must be provided by the facility.

Additional lab modules - space factor - for training - individual study. Comment in Section 3.

## 4.0 PROGRAM DATA REQUIRED

Total laboratory CAP work units per year

Total laboratory CAP work units for the following categories:

Chemistry
Hematology
Immunology/Serology
Urinalysis
Microbiology
Parasitology/feces
Blood banking
Histopathology
Cytology
Virology
AIDS
Staffing requirements

Annual autopsy procedures
Annual average deaths
Annual whole blood donations
Annual phoresis donations

## 5.0 SPACE CRITERIA

**Laboratory Modules: Number and Sizes**

Laboratory modules in each of the following areas are planned according to the table given above in section 3.0, based upon annual CAP work units in each area, and are sized according to the following table:

| Module | NSF | Comments |
|---|---|---|
| Chemistry | 280 | All modules |
| Hematology/ Immunology | 170 | 170 include |
| Serology | 200 | refrigerator/ freezer space. |
| Urinalysis | 200 | |
| Microbiology | 250 | |
| Parasitology/feces | 250 | |

| | |
|---|---|
| Blood Banking | 160 |
| Histopathology | 220 |
| Cytology | 160 |
| Virology | 250 |

If the projected annual CAP work units in any of the above areas is less than 33,000 the areas may be combined as follows to determine the number of regional lab modules.

| | |
|---|---|
| Group A - | Chemistry, Urinalysis |
| Group B - | Hematology, Immunology/Serology, Blood Banking |
| Group C - | Microbiology, Parasitology/feces, Virology |
| Group D - | Histopathology, Cytology |

In each group where there is a work load, a minimum of one module is provided.

Updated 29 Jan 93

| FUNCTION | NSF AUTHORIZED | PLANNING RANGE/COMMENTS |
|---|---|---|
| **Technical Work Elements** | | |
| Control | 120 | per department |
| Specimen Receiving | 100 | minimum. Add 20 NSF for each 10 lab modules in excess of 20 |
| Specimen Collection Blood Drawing | 100 | minimum. Add 20 NSF for each 35 specimens or portion thereof in excess of 70 per day (includes space for litter) |
| Waiting Area | 80 | minimum. 16 per seat, 25 per handicapped seat 1 seat per 10 specimens per day, 80 NSF minimum, 5% of seating is handicapped |
| Specimen Storage | 100 | plus 2 NSF per lab module |
| Urine Collection Toilet (M) | 50 | 1 wc, 1 lav single occupancy per increment of 30 specimens/day |
| Urine Collection Toilet (F) | 50 | 1 wc, 1 lav single occupancy per increment of 30 specimens/day |
| Blood Donor Area Interview Area | 80 | 1 per 4 blood stations |
| Donor station | 80 | Per station. # of stations = Whole Blood donors/day x 25 /360 (work minutes per day) + Phoresis /2 per day |
| Recovery Area | 150 | per facility |
| Computer | * | Special study required |
| Transcription | 100 | minimum or 80 NSF per assigned clerk if more than 1 |
| Storage/Records | 50 | minimum; 50 per assigned clerk |
| Control/Clerical | 100 | minimum, or 80 NSF per transaction control clerk programmed over 1 |
| Storage/Central | 50 | minimum; or 10 NSF per lab module |
| Media and Solution Prep | 220 | per department with over 25 lab modules |

| | | |
|---|---|---|
| Decontamination Room | 100 | add 50 NSF for each 25 lab modules in excess of 25 |
| Room in excess of 25 | Room in excess of 25 | Room |
| Glassware Washing | 100 | Special justification required. |
| Satellite Lab | | Satellite Lab Individual study required. Will be portion of the total Lab Allocation. There will be no additional space programmed. |
| **Clinical Pathology** | | |
| Incubation Room | 10 | per microbiology and parasitology module over 2 modules |
| **Anatomical Pathology** | | |
| Tissue Storage | 60 | per histology module, |
| | 40 | per cytology module; 50% may be noncontiguous to lab. |
| Autopsy: | | |
| | 280 | per table # tables = annual autopsy proc / 200 |
| change area | 100 | lockers |
| | 30 | Per fixture; staff toilets |
| | 30 | per shower |
| body holding | 25 | per space. # spaces = annual average deaths / 50 (round at 0.2)(one minimum) |
| body prep area | 100 | 1 per facility where no autopsy room is provided. |
| ante/viewing room | 100 | 1 per facility |
| tissue storage | 25 | minimum; 1 NSF per annual autopsy proc. |
| **Staff Support** | | |
| Pathological Waste Holding | 40 | plus 20 NSF per 10 modules greater than 15. 150 NSF maximum |
| Archives and Record | | Space allocation required. Individual study. |
| Lockers | | |
| Male | 100 | minimum. add 6.5 NSF per locker for each FTE mbr. over 15. |
| Female | 100 | minimum. add 6.5 NSF per locker for each FTE mbr. over 15. |
| Toilet | | |
| Male (wc, lav) | 60 | 30 NSF per fixture (lav, wc) per 20 men |
| urinal | 30 | one per 40 men or fraction thereof |
| Female (wc, lav) | 60 | 30 NSF per fixture per (lav. wc) 15 women |
| On Call Alcove | 100 | |
| Lounge | 100 | minimum; Plus 10 NSF per tech greater than 10, 200 NSF maximum |
| Housekeeping | 40 | per 30 modules or portion thereof |
| **Administrative Areas** | | |
| **Offices:** | | |
| Chief of Pathology | 140 | |
| Secretary/Waiting | 120 | additional justification required for more than 1 |
| NCOIC 100 | 100 | |
| Conference Room | 100 | plus 20 NSF per officer. max 200. |
| Pathologist | 100 | |

| | | |
|---|---|---|
| Laboratory Office | 100 | minimum, or 80 NSF per officer greater than 1 |
| Bulk Supply Rec/Ship | . | Space allocation required. Individual study. |
| **Teaching Facilities** | | |
| Instructor's Office | 100 | 1 per instructor |
| Resident's Office | 100 | minimum or 80 NSF per resident |
| Teaching Files | 300 | 1 per teaching facility |
| Library Classroom /Conference | 300 | minimum or 250 plus 10 NSF per resident. 1 per teaching facility. |
| **Medical Photography** | | Requires special justification. |
| **Non-teaching Hospitals** | | |
| Dark room | 150 | includes film processors and enlarger |
| Print processor Area | 100 | black and white and color |
| Studio | 400 | |
| Change area | 80 | Includes two booths and space for four patient lockers |
| Supply & storage | 100 | |
| NCOIC | 100 | If more than one man shop |
| Administration | 100 | minimum or 80 NSF per employee |
| **Teaching Hospitals** | | |
| Dark room B & W | 100 | includes film processors |
| Dark room Color | 100 | includes film processors |
| Print processor | 100 | black and white |
| Print processor | 100 | Color prints |
| Color Slide Processor | 130 | |
| Copy Laboratory | 600 | Includes light side of copy camera. |
| Darkroom | 300 | Includes processing sink for copy camera negatives. |
| Finishing Area | 150 | For assembly and distribution of final projects |
| Full Length Studio | 400 | for full length medical photography |
| Medical Studio | 150 | |
| Change area | 80 | Includes two booths and space for four patient lockers |
| Supply and storage | | |
| Supply Admin | 100 | minimum or 80 NSF per assigned tech. |
| Walk-in refrigerator | 100 | Film and supply breakout |
| Walk-in Freezer | 125 | Film, and paper storage |
| Chemistry Store | 120 | |
| Dry Storage | 120 | |
| Secure Storage | 50 | Combine with supply admin for storage of Photographic equipment. |
| NCOIC | 100 | If more than one man shop |
| Administration | 100 | minimum or 80 NSF per employee |

# L. PHARMACY

## 1.0 PURPOSE AND SCOPE

This document specifies space planning criteria for Pharmacy services. It does not contain space criteria for specialized clinical pharmacy functions. These functions will be found in the criteria for the services supported which are:

Hematology/Oncology: See Outpatient Clinic Criteria.

Radiopharmacy: See Nuclear Medicine Criteria.

## 2.0 DEFINITIONS

**Drug Information Service** - The objective of this aspect of Clinical Pharmacy Service is to provide complete drug information, upon request, to medical officers, and other staff members. This function may be facilitated by subscribing to the Iowa Drug Information Service which includes drug literature from over 150 medical and pharmacology journals recorded on microfilm. This system should be supplemented with selected text books and other references.

**Satellite Pharmacy** - Additional operation locations (inpatient and/or outpatient) which will supplement and support the main inpatient and/or outpatient pharmacies by diverting a portion of the work load to another dispensing area to facilitate a better work and patient flow.

**Clinical Pharmacist** - A pharmacist with specialized education and training in the principles of disease processes and pharmacotherapeutics. May have special expertise in highly specialized areas such as pharmacokinetics, research, hematology/oncology, or radiopharmacology.

## 3.0 POLICIES

The locations, quantities, and types of pharmacy dispensing activities will be determined by work load, the location of activities supported and the projected number of supervisory personnel.

**Outpatient Pharmacy** should be located near and readily accessible to the outpatient clinics.

**Inpatient Pharmacy:**

a. Medical facilities with more than 100 beds should have a separate inpatient pharmacy.

b. This activity must be readily accessible to the nursing unit to facilitate the drug distribution process.

c. The main inpatient pharmacy and satellites should (where feasible) be linked to the main pharmacy by a dedicated materials handling system that is capable of transporting bulk medications.

**Satellite Pharmacies:**

a. Medical facilities with work loads that generate space authorizations for satellite pharmacies may combine the satellite space with the main pharmacies instead of programming the separate satellites.

b. Adequate numbers of supervisory personnel should be projected to supervise the number of pharmacy operating locations program.

c. Each inpatient pharmacy location will be provided with its own unit dose and IV admixture functions.

A delivery system capable of transporting intravenous solutions, immediate medication doses, and physician orders between the inpatient pharmacies and the nursing units will be provided.

The drug information service should be located adjacent to the inpatient pharmacy administrative area.

These criteria provide separate space for inpatient pharmacy bulk storage and outpatient pharmacy bulk storage. This space may be combined provided a dedicated materials handling system directly links the bulk storage area to the main pharmacies.

---

## 4.0 PROGRAM DATA REQUIRED

(Raw work load data will be used without MEPRS weighting.)
Projected average outpatient prescriptions per month.
Projected Average Daily Patient Load (ADPL).
Projected average number of IV admixtures prepared per month.
Staffing (Projected to be available)
Pharmacists
NCOIC
Secretary/Receptionists
Technicians
Trainees
Clerks

---

## 5.0 SPACE CRITERIA

| FUNCTION | NSF AUTHORIZED | PLANNING RANGE /COMMENTS |
|---|---|---|
| **Administrative Support Offices** | | |
| Dept. Chairman/Chief | 140 | |
| Dept. Vice Chairman/ Asst. Chief | 120 | Medical Centers |
| Staff Pharmacists | 100 | Per staff Pharmacist |
| **Staff Support** | | |
| Superintendent/NCOIC | 100 | |
| Secretary/Reception | 120 | When Authorized |
| Clerical/Admin. | 100 | minimum or 80 NSF per clerk over 1 |
| Conference/Training Room | 200 | Authorized in facilities of 200 beds or more. |
| Data Automation | 20 | Per terminal/ printer where used. |
| Janitor's Closet | 40 | 1 per Pharmacy |
| Lounge | 100 | minimum; Add 10 NSF/staff greater than 10; 200 min. |
| Lockers | | |
| Male | 100 | minimum; 6.5 NSF/locker per FTE assigned over 15 |
| Female | 100 | minimum; 6.5 NSF/locker per FTE assigned over 15 |
| **Toilets** | | |
| Male (wc, lav) | 60 | 30 NSF/fixture per 20 men |
| urinal | 30 | one per 40 men or fraction thereof |

| | | |
|---|---|---|
| Female (wc, lav) | 60 | 30 NSF/fixture per 15 women |

**NSF/PROJECTED AVERAGE OUTPATIENT PRESCRIPTIONS (RX) PER MONTH**

**Outpatient Main Pharmacy**

| Rx Range | Main Dispensing | FORMS WRITING | Main Waiting Area |
|---|---|---|---|
| 1-5,000 | 300 | 10 | 300 |
| 5,001-25,000 | 400 + (100/5,000 RX in excess of 10,000) | 20 | 400 +(100/5,000 RX in excess of 10,000) |
| 25,001-35,000 | 700+100 if RX exceeds 30,000 | 20 | 700 |
| 35,001-50,000 | 800 | 30 | 700 |
| 50,001+ 30 700 | 900 + (100/10,000 over 55,000) | 30 | 700 |

**NOTE: Includes space for storage of active drug stocks**

| | Satellite #1 Dispensing | Forms Writing | Satellite #1 Waiting |
|---|---|---|---|
| 1-5,000 | | | |
| 5,001-25,000 | 200 if RX exceeds 20,000 | 10 | 100 if RX exceeds 20,000 |
| 25,000-35,000 | 300 | 20 | 150 |
| 35,000-50,000 | 200 + 100 if RX exceeds 40,000 | 20 | 100 + 50 if RX exceeds 45,000 |
| 50,000+ | 300 | 0 | 150 |

| | Satellite #2 Dispensing | Forms Writing | Satellite #2 Waiting |
|---|---|---|---|
| 1-5,000 | | | |
| 5,001-25,000 | | | |
| 25,000-35,000 | 200 + 100 if RX exceeds 45,000 | 10 | 100 + 50 if RX exceeds 45,000 |
| 50,000+ | 300 | 20 | 150 |

Bulk Storage - 100+100/5,000 RX in excess of 5,000. Maximum 1,000 NSF (Includes space for receiving, breakdown, sorting, and storage).

Manufacturing & Pre-pack - 200 + 100/10,000 RX in excess of 10,000 (May be combined with inpatient mfg. & pre pack.)

Updated 18 Feb 92

**NSF/PROJECTED AVERAGE IV ADMIXTURES PER MONTH**

**Inpatient Pharmacy**

| Rx Range Admixture | Main Pharmacy IV Admixture | Satellite #1 IV |
|---|---|---|
| 1-2,000 | 300 | |
| 2,001- 6,000 | 300 + (50/1,000 IV Admix in excess of 3001) | |
| 6,001- 9,000 | 350 + (50/1,000 IV Admix in excess of 7001) | 200 |
| 9,001-15,000 | 400 + (50/1,000 IV Admix in excess of 10,001) | 200 |
| 15,000+ | 450 + (50/1,000 IV Admix in excess of 16,001) | 200 |

NOTE: Includes space for bulk storage of IV additives and limited supply of bulk solutions.

| RX Range Admixture | Satellite #2 IV Admixture | Satellite #3 IV Admixture |
|---|---|---|
| 1-2,000 | | |
| 2,001- 6,000 | | |
| 6,001- 9,000 | | |
| 9,001-15,000 | 200 | |
| 15,000+ 200 | 200 | 200 |

**NSF/PROJECTED AVERAGE DAILY BEDS OCCUPIED**

| RX Range | Main Pharmacy Unit Dose Drug Distribution | Satellite #1 Unit Dose |
|---|---|---|
| 1-50 | 200 | |
| 51-200 | 300 + 100 if ADPL exceeds 100 | |
| 201-500 | 300 + 100/100 ADPL in excess of 300 | 200 |
| 501-700 | 600 + 200 if ADPL exceeds 600 | 300 + 100 if ADPL exceeds 600 |
| 701-900 | 900 + 100 if ADPL exceeds 800 | 300 + 100 if ADPL exceeds 800 |
| 900+ | 1,200 | 200 + 100 if ADPL exceeds 1,000 |

NOTE: Includes space for storage of active drugs stock and carts

| RX Range | Satellite #2 Unit Dose | Satellite #3 Unit Dose |
|---|---|---|
| 501-700 | 501-700 200 if ADPL exceeds 600 | |
| 701-900 | 200 | 200 if ADPL exceeds 800 |
| 900+ | 200+100 if ADPL exceeds 1,000 | 200 |

**NSF/PROJECTED AVERAGE DAILY BEDS OCCUPIED**

| RX Range | Bulk Storage | Mfgr & Pre-pack/ Bulk Orders |
|---|---|---|
| 1-50 | 300 | 150 |
| 51-200 | 400 + 100 if ADPL exceeds 100 | 200 + 100 if ADPL exceeds 100 |
| 201-500 | 600 + 100/100 if ADPL exceeds 300 | 400 + 100/100 if ADPL exceeds 300 |
| 501-700 | 850 + 50 if ADPL exceeds 600 | 600 + 100 if ADPL exceeds 600 |
| 701-900 | 950 + 50 if ADPL exceeds 800 | 700 |
| 900+ | 1,000 | 700 |

NOTE: Includes space for supply mgmt/administration.

**NSF/PROJECTED AVERAGE OUTPATIENT PRESCRIPTIONS PER MONTH**

| Rx Range | Controlled Drug Area | Flammable/Poison Storage |
|---|---|---|
| 1-5000 | 25[a] | 10[b] |
| 5,001-30,000 | 75 | 30 |
| 30,001-40,000 | 100 | 30 |
| 40,000+ | 150 | 30 |
| NOTES | [a] 50 cubic foot safe | [b] Metal locker |

**Clinical Pharmacy Services**

**NSF/PROJECTED AVERAGE DAILY BEDS OCCUPIED**

| Range | 1-150 | 151-500 | 501 + |
|---|---|---|---|
| Drug Information | [c] | 200 | 400 |

Services

c Special Study

:

# P. VETERINARY SERVICES

## 1.0 PURPOSE AND SCOPE

This document specifies the space planning criteria for veterinary service at all DOD military installations.

Space planning criteria, as outlined in other functional criteria sections, such as administrative areas, toilets, lockers, housekeeping and so forth, will be used as required to supplement veterinary service criteria.

## 2.0 DEFINITIONS

Veterinary Facility. A medical department facility equipped and staffed to perform the entire spectrum of veterinary services required by a military installation. Normally, a veterinary facility will include: Offices for the Veterinarian and section chiefs; conference room/library; food inspection room; waiting room for visitors/outpatients; veterinary examination/treatment rooms; veterinary surgery room; X-ray facilities; pharmacy; clinical laboratory room; inside rabies quarantine kennel rooms; inside-outside kennel area for hospitalized Government owned animals; toilets and showers; employee lounge; locker and dressing rooms; linen room; and storage space for records, supplies, and cleaning equipment.

**Veterinary Food Inspection Room**. A room adequately equipped for the performance of installation food testing and examination procedures.

**Veterinary Examination/Treatment Room**. A room adequately equipped for the performance of professional veterinary examinations and treatments.

**Veterinary Surgery Room**. A room with adequate space designed and adequately equipped for the performance of aseptic surgical procedures on nonhuman animals.

**Veterinary Waiting Room**. A room with adequate space to permit the entering of animals without contact with the animals/owners already present.

**NOTE**: Military working dogs must be handled in such a way that there will be no eye contact or possible physical contact between military and civilian animals. Military working dogs should enter through a separate entrance.

**Rabies Quarantine Kennel Room**. A separate room designed and equipped to house rabies suspect animals. NOTE: No more than one animal will occupy the same cage or kennel at the same time.

**Hospitalization Kennel Area**. A kennel facility adequately equipped with inside-outside kennels to hospitalize animals.

**Government Owned Animals**. Animals purchased and/or maintained with appropriated funds, for the accomplishment of an authorized mission.

**Veterinary Clinic Laboratory**. As used in this document, a laboratory of limited capability within a veterinary clinic to be used in the performance of certain diagnostic tests.

**Pharmacy Storage Area**. An area designated and equipped for the storage and bulk dispensing of veterinary pharmaceutical supplies. Individual prescriptions are not filled from this area.

**Space**. All space measures are expressed in net square feet (NSF).

**Inside-Outside Kennel**. A kennel inside a building with an attached, partially covered, outdoor run. The indoor and outdoor areas are attached by a guillotine type door to allow isolation of the animals during cleaning operations.

**Stray Animal Confinement Facility**. A kennel facility separate from the rabies quarantine room and hospitalization kennels which is used to confine animals apprehended as strays.

## 3.0 POLICIES

The space planning criteria as outlined in this document are provided as guidance to assist in the development of veterinary facilities essential for high quality service. Modification of the criteria may be necessary to meet specific mission requirements but any such modification will require OASD(HA)

approval. Specific requirements for facilities not covered by this document will be developed on an individual basis and will also require OASD(HA) approval.

The complete scope of the veterinary mission and the total number of veterinary personnel authorized to an installation will be used as a basis for establishing future facility projections. The current personnel authorized will be adjusted for planned changes in mission, changes in population served, changes in the practice of veterinary medicine, and other factors as may be pertinent.

Veterinary facilities will be consolidated into the minimum number of facilities consistent with providing effective and efficient veterinary services. Veterinary facilities may be combined with other medical service facilities when feasible.

All construction will conform to Title 9, Code of Federal Regulations, Chapter 1, Subchapter A - Animal Welfare.

At DoD installations where one or more Army Veterinary Corps Officers are assigned for regular duty, veterinary facilities will be established.

The spaces listed below are normally required for veterinary support at installations. It is not intended that planners include each functional area listed herein, unless there is a valid requirement at the installation under consideration.

(1.) Office of the Chief Veterinarian

(2.) Administrative Support Area

(3.) Conference Room - Library

(4.) Food Inspection and Laboratory Area

(5.) Veterinary Examination/Treatment Rooms

(6.) Veterinary Surgery Room

(7.) X-ray Exposure & Radiographic Film Development Rooms*

(8.) Pharmacy Storeroom

(9.) Clinic Laboratory Area

(10.) Utility and Supply Area (for Clinic)

(11.) Rabies Quarantine Kennels

(12.) Hospitalization Kennels

(13.) Utility Area (for Kennels)

(14.) Veterinary Clinic Reception and Control Area

(15.) Patient Handler Waiting Area

(16.) Clinic Records Holding Area

(17.) Toilets, Showers, Locker Rooms

(18.) Employees' Lounge

(19.) Custodial Facility

(20.) Stray Animal Confinement Kennels

* Where the number of X-ray exposures is expected to remain at a low level, one treatment room should be lead lined for use as a part time X-ray exposure room, and no dedicated X-ray exposure room will be provided.

## 4.0 PROGRAM DATA REQUIRED

Number of veterinary officers assigned _____
Number of veterinary technicians assigned _____
Number of military working dogs supported _____
Number of outpatient visits per year _____
Number of rabies suspects per year _____
Number of personnel assigned to food inspection activities _____
Number of stray animals confined per year _____

## 5.0 SPACE CRITERIA

| FUNCTION | NSF AUTHORIZED | PLANNING RANGE /COMMENTS |
|---|---|---|
| **Administration** | | |
| Chief Vet Services | 140 | One per facility |
| Office, Veterinarian | 100 | One per veterinarian assigned |
| Secretary | 120 | One per facility. Includes 2 visitor chairs. |
| NCOIC | 100 | One per facility |
| Administrative Office | 100 | minimum or 80 NSF per NCO or vet technician that requires an office whichever is greater. |
| Conference Room/ Library | 200 | Only when 14 or more FTE staff are assigned. If less than 14 FTE staff assigned, add 40 NSF to lounge and combine functions. |
| Control Area | 110 | One per clinic |
| Waiting | 200 | minimum plus 14 NSF per exam/treatment room greater than three |
| **Treatment Areas** | | |
| Examination/Treatment | 100 | Examination/Treatment 100 One per assigned Veterinarian including Chief Veterinarian |
| Veterinary Surgery | 200 | Authorized only when 10 or more military working dogs are assigned to the installation. |
| X-Ray Exposure Room | 150 | Authorized only when 1,000 or more annual outpatient visits are planned. If less than 1,000 annual outpatient visits, combine into an exam/treatment room. |
| X-Ray Film Darkroom | 50 | One per X -Ray exposure room. |
| Pharmacy | 110 | minimum plus 10 NSF per each additional 1,000 annual outpatient visits. |
| Laboratory | 100 | minimum plus 10 NSF per each additional 1,000 annual outpatient visits. If annual outpatient visits less than 1,000, combine with Pharmacy. |
| **Holding and Quarantine** | | |
| Rabies Quarantine Area | 40 | per canine, minimum 2 per fac. |
| | | per feline, minimum 2 per fac. Add one canine and one |

| | | |
|---|---|---|
| | 10 | feline per each 12 estimated suspects per year greater than 24. |
| Hospitalization Kennel | 60 | Minimum of 2 inside-outside kennels plus 60 NSF per each 10 military working dogs assigned greater than 20. |
| Stray Animal Confinement Kennels | 40 | Canine, minimum 2 per facility |
| | 10 | feline, minimum 2 per facility. Add one canine and one feline for each 24 estimated strays greater than 48 per year. |
| Utility and Storage Area | 150 | One per Holding/Quarantine area. |
| **Food Inspection Activities** | | |
| Food Inspection Room | 350 | minimum. If more than 4 vet technician/officers assigned to food inspection activities add 90 NSF for each additional veterinary technician/officer assigned. |
| **Support Areas** | | |
| Housekeeping | 60 | minimum plus 60 NSF for each 5,000 NSF greater than 5,000. |
| Clean Utility | 100 | one per facility |
| Storage | 200 | one per facility |
| Staff Toilet | | |
| Male | 60 | 30 NSF per fixture, (lav, wc) per 20 men assigned. |
| Urinal. | 30 | 1 per 40 men or fraction. |
| Female | 60 | Female 60 30 NSF per fixture, (lav, wc) per 15 women assigned. |
| **Lockers** | | |
| Male | 100 | minimum, plus 6.5 NSF per male greater than 15 |
| Female | 100 | minimum, plus 6.5 NSF per female greater than 15 |
| Lounge | 150 | one per facility. |

# Q. CLINICAL INVESTIGATION FACILITIES

## 1.0 PURPOSE AND SCOPE

This section specifies the space planning criteria to be used for Department of Defense (DoD) Clinical Investigation Facilities (CIF). These criteria provide the specialized environment and facilities for the receipt, processing, and housing of laboratory animals used for medical/dental research. In addition, it provides space for staff support, laboratory support, supply/equipment storage, and a surgical area.

## 2.0 DEFINITIONS

**American Association for Accreditation of Laboratory Animal Care (AAALAC)** This nonprofit organization was formed in 1965 by leading US scientific and educational organizations to promote high quality animal care and use through a voluntary education program. The guidelines by which this organization inspects all facilities is the **Guide for the Care and Use of Laboratory Animals.**

**Animal Research Facility** Any research facility that uses or intends to use live animals in research, tests, experiments, or instructional programs.

**Clinical Investigation** All medical research activities carried out for the purpose of studying either basic science or clinical issues relating to the health and wellbeing of DoD beneficiaries. Most clinical investigation will be carried out in support of graduate medical education programs and supported with designated clinical investigation funds.

**Department of Defense Directive Number 3216.1, 1 Feb 82** "The Use of Animals in DoD Programs." This directive establishes uniform policies, procedures, and responsibilities among DoD components involved in the use of animals. It states that the Clinical Investigative Facility must seek accreditation from the AAALAC.

**Guide for the Care and Use of Laboratory Animals** This is a National Institute of Health Publication by the Department of Health and Human Services which provides additional guidance on housing, caring for, and using laboratory animals.

**Medical Research Facility** Any school (except an elementary secondary school), institution, organization, or person that conducts clinical investigation or other medical research.

**Quarantine** The separation of newly received animals from those already in the facility until the health of the newly received animals has been evaluated.

**The Laboratory Animal Welfare Act of 1966, Subsequent Amendments, and Implementing Regulations** Requires the licensing of dealers, identification of animals, maintenance of records, submission of reports, and compliance with standards for the humane handling, care, treatment, and transportation of animals by dealers and research facilities.

**Vivarium** An enclosed indoor place for keeping and studying terrestrial animals.

## 3.0 POLICIES

Proper management of animal facilities is essential to the welfare of animals, validity of research data, and health and safety of the animal care staff. Specifically, the animal research laboratory should:

a. Provide for a caging or housing system that facilitates animal wellbeing, meets research requirements, and minimizes experimental variables. This includes providing space that is adequate, permits freedom of movement, has a resting place, adequate ventilation, meets the biological needs of animals, and provides easy access to food and water.

b. Meet minimum space recommendations for laboratory animals as outlined in the Guide for the Care and Use of Laboratory Animals.

c. Provide for pens, runs, or other outofcage space for larger species to allow more opportunity for exercise when being held for longer periods of time.

d. Allow for the effective control of the physical environment in terms of humidity, temperature, ventilation, illumination, and noise.

e. Designate areas for bulk storage of food that are

cool, dry, clean, and free of vermin and other potential contaminants. Additionally, bedding should be kept in an area that is off the floor on pallets, racks, or carts.

f. Ensure that animals have continuous access to fresh, potable, uncontaminated drinking water, according to their particular requirements.

g. Establish the use of mechanical equipmentwashing machines. Some means of sterilizing equipment and supplies, such as an autoclave or gas sterilizer, is essential when pathogenic organisms are present or for some specialized facilities or animal colonies.

h. Collect and dispose of waste in a safe and sanitary manner. All 50 states require incineration of all animal bedding and carcass material.

## 4.0 PROGRAM DATA REQUIRED

a. Number of Veterinary and Medical Officers assigned _____
b. Number of Administrative personnel assigned _____
c. Number of Microbiologists assigned _____
d. Number of Biochemists and research chemists assigned _____
e. Number of Histologists assigned _____
f. Number of Immunologists assigned _____
g. Number of Hematologists assigned _____
h. Number of Physiologists assigned _____
i. Number of Statisticians assigned _____
j. Number of Nurse Researchers assigned _____
k. Number of technicians (e.g. laboratory, surgical, veterinary, physiology) assigned _____
l. Number and Types of animals used _____
m. Number and types of protocols/year (i.e. active, training) _____
n. Number of researchers per year not covered above _____
o. Types of courses held at the Clinical Investigation Facility, frequency, and number of attendees/instructors _____
p. Type, number, duration, and numberof participants in associated Graduate Medical Education programs _____

## 5.0 SPACE CRITERIA

| FUNCTION | NSF AUTHORIZED | PLANNING RANGE /COMMENTS |
|---|---|---|
| **Administration** | | |
| Office, DirectorCIF | 140 | 140 One per facility. |
| Secretary | 120 | Includes computer space and waiting. |
| Office, Veterinarian | 100 | One per veterinarian. |
| Office, Physician | 100 | One per physician. |

| | | |
|---|---|---|
| Office, Scientist | 100 | One per scientist. |
| **Administration** | | |
| Office, Admin. Officer | 100 | If authorized. |
| Office, Technicians | 80 | Per technician. |
| Conference Room/Library | 200 | Minimum. Additional space requires justification. |
| Copier/Reproduction | 80 | One per facility. |
| Active Files | 100 | One per facility. Individual study. |
| Archive Storage | 100 | One per facility. Individual study. |
| **Laboratories** | * | Justification required for all items |
| Biochemistry Module | 300 | *Individual study. |
| Isotope Room | 100 | *Individual study. |
| Microbiology Module | 250 | *Individual study. |
| TB/Mycology Module | 300 | *Individual study. |
| Tissue Culture Module | 300 | *Individual study. |
| Histo/Path Module | 220 | *Individual study. |
| Cardiopulmonary Module | 300 | *Individual study. |
| Hematology Module | 170 | *Individual study. |
| Chemistry Module | 280 | *Individual study. |
| Hyperbaric Proced. Room | | *Individual study. **(size dependent on facility workload)** |
| Nuclear Medicine | 500 | *Individual study |
| Grossing Room | 150 | Grossing Room |
| Electronmicroscopy | 200 | *Individual study. |
| Darkroom | 90 | *Supports electron microscope. Individual study. |
| Print Room | 100 | *Supports electron microscope. Individual study. |
| Prep Room | 100 | *Supports electron microscope. Individual study. |
| **Laboratory Support** | | |
| Scintillation Room | 100 | *Individual study. |
| Radioactive Waste | 80 | *Individual study. |
| Storage | 100 | *Individual study. |
| Hazardous Storage | 50 | *Individual study. |
| Acid Storage 50 | 50 | *Individual study. |
| Freezer Rm/Ultra Lo | 60 | *Individual study. |
| Refrigerated Storage | 200 | Refrigerated Storage |
| Glass Wash/Autoclave | 200 | *Individual study. |
| Equipment Storage | 150 | *Individual study. |
| **Staff Support Administration & Laboratory** | | |
| Toilet, Staff | 50 | |
| Staff Lounge | 100 | Minimum; add 10 NSF per staff member greater than 10. 200 NSF maximum. |
| Janitor's Closet | 40 | |

**Surgical Area**

| | | |
|---|---|---|
| Main Operating Room | 400 | Amount depends on number of protocols. More than one requires individual study. Increase in size requires justification. |
| Minor Operating Room | 200 | Amount depends on number of protocols. More than one requires individual study. Increase in size requires justification. |
| Scrub Alcove | 60 | Per operating room. |
| Case Prep Room | 150 | |
| Portable XRay Alcove | 40 | |
| Recovery Room | 100 | Individual study. |
| Central Material Assembly/Processing | 150 | Individual study. |
| Decontam/Cleanup | 100 | |
| Disposable/Sterile Storage | 150 | |
| Small steam sterilizer | 60 | Per machine. If double door, add 30 NSF. |
| Medium steam sterilizer | 110 | Per machine. If double door, add 60 NSF. |
| Large steam sterilizer | 130 | Per machine. If double door, add 60 NSF. |
| Small gas sterilizer/ | 120 | Room includes sterilizer & aerator backup aerator. |
| Medium gas sterilizer/ | 200 | Add 60, 75, or 100 NSF for aerator each additional small, medium, and large sterilizer/aerator respectively. If double door, add 30, 60, or 90 NSF respectively. |
| Large gas sterilizer/ aerator | 250 | |
| Vet Supply/Pharmacy | 100 | |
| Equipment Storage | 100 | Individual study. |

**Staff Support Surgical Area**

| | | |
|---|---|---|
| Toilet, Female | 50 | 1LAV, 1WC for each 15 women or fraction thereof. |
| Toilet, Male | 60 | 1LAV, 1WC for each 20 men or fraction thereof. |
| Janitor's Closet | 40 | |
| Shower | 30 | 1 per 20 lockers. Provide one shower for each group of male & female lockers. |
| **Locker Rooms:** | | |
| Male | 100 | Add 10 NSF per male staff greater than 10. |
| Female | 100 | Add 10 NSF per female staff greater than 10. |

**Vivarium**

| | | |
|---|---|---|
| Loading Dock | 110 | |
| Animal Receiving | 150 | |
| Quarantine Room | 250 | |
| Isolation Room | 100 | |
| Exam/Treatment Room | 150 | |
| Animal Tub Room | 80 | |
| Radiography Rad/Fluoro Room | 300 | Individual study. |
| Film Processing | 120 | |
| View/Film Holding | 100 | |

| | | |
|---|---|---|
| Xray Control Room | 100 | |
| Large Animal Room | 175 | Number of rooms must be justified according to projected protocols. Individual study. |
| Small Animal Room | 150 | Number of rooms must be justified according to projected protocols. Individual study. |
| Animal Runs (small) | 175 | Justification required. Individual study. |
| Animal Runs (Large) | 400 | Individual study. |
| Dry Bedding Storage | 200 | Individual study. |
| Feed Storage | 200 | Individual study. |
| Autoclave | 60 | Minimum. Individual study. |
| Equipment/Supply Storage | 150 | Individual study. |
| Clean Cage Preparation/ Maintenance | 100 | |
| Food Prep/Refrigeration | 200 | |
| Cage Storage | 600 | Individual study. |
| Cage Washing Dirty | 200 | |
| Cage Clean | 200 | |
| Cold Room Waste | 100 | Individual study. |
| Necropsy | 180 | |
| Carcass Refrig Storage | 100 | |
| Laundry | 100 | Individual study. |
| Clean Linen Storage | 50 | Individual study. |
| Dirty Linen Storage | 50 | Individual study. |
| Janitor's Closet | 40 | |
| **Staff Support Vivarium** | | |
| Toilet, Female | 60 | 1LAV, 1WC for each 15 women or fraction thereof. |
| Toilet, Male | 60 | 1LAV, 1WC for each 20 men or fraction thereof. |
| Shower | 30 | 1 per 20 lockers. Provide one shower for each group of male & female lockers. |
| **Locker Rooms** | | |
| Male | 100 | Minimum. Add 10 NSF per male staff greater than 10. |
| Female | 100 | Minimum. Add 10 NSF per female staff greater than 10. |
| Lounge | 100 | |